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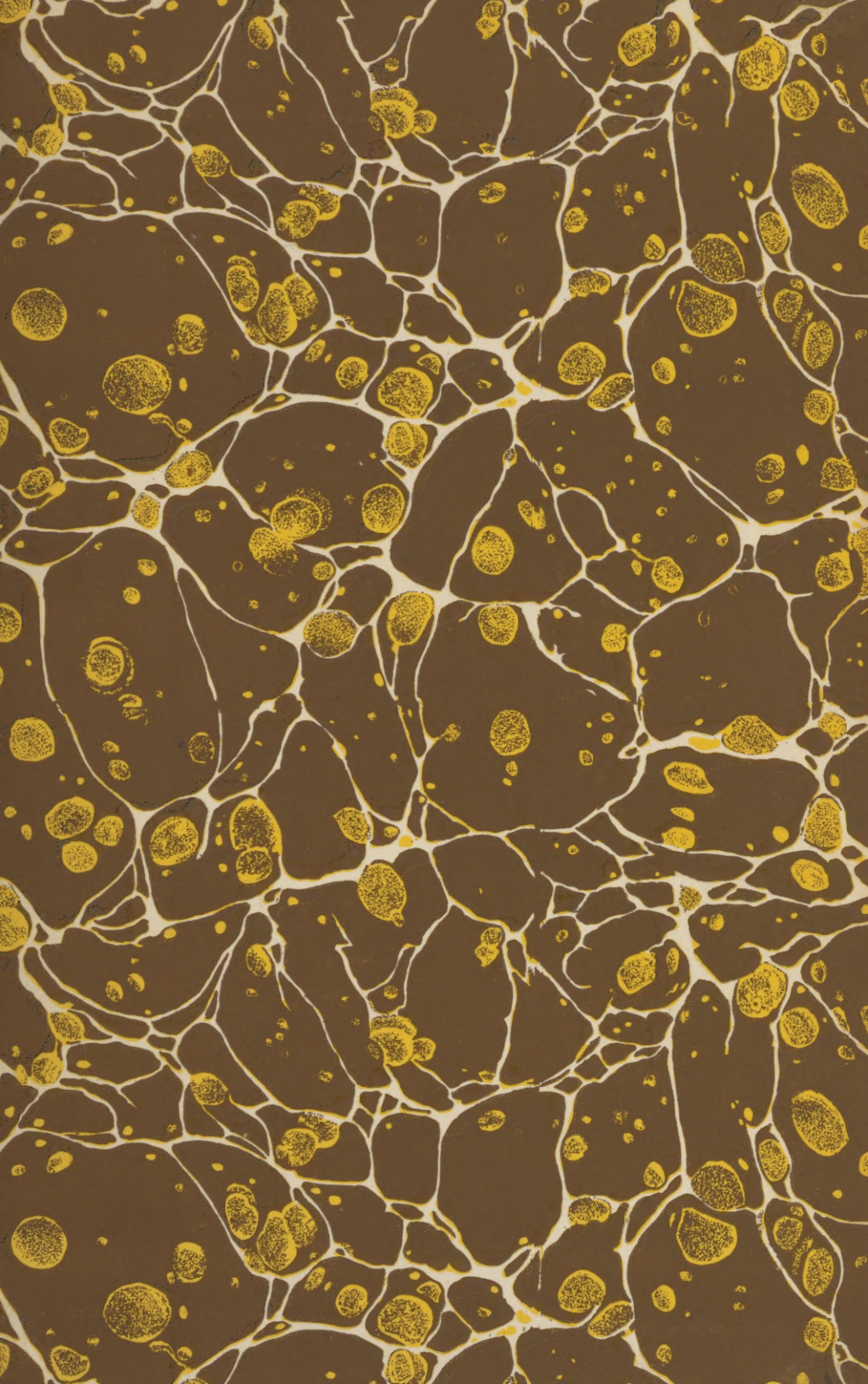
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Vol. 3.

April, 1899.

No. 1

# THE JOURNAL

....OF THE....

Mississippi State Medical Association.

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# The Journal

.....of the.....

## Mississippi State Medical Association.

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VOL. III.

APRIL, 1899.

No. 1

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### Original Articles.

#### Points in the Arsenical Caustic Treatment of Cutaneous Cancers.

By WILLIAM S. GOTTHEIL, M. D.

1. The arsenious acid caustic treatment of skin cancers does not contemplate or depend upon the actual destruction of the new growth by the caustic.

2. The method is based upon the fact that newly formed tissue of all kinds has less resisting power than the normal structure when exposed to an irritation and its consequent inflammation. Hence the former breaks down under an "insult" which the latter successfully resists.

3. If, therefore, the whole affected area can be subjected to the influence of an irritant of just sufficient strength to cause a reactive inflammation intense enough to destroy the vitality of the new cells, the older normal cells will survive.

4. Arsenious acid of properly mitigated strength is such an agent, and its application causes an inflammation of the required intensity.

5. It therefore exercises a selective influence upon the tissues to which it is applied, and causes the death of the cancer

cells in localities outside the apparent limits of the new growth, where there is as yet no evidence of disease.

6. It is superior, in suitable cases, to any method, knife or cautery which requires the exercise of the surgeon's judgment as to the extent to which it is to be carried. That that judgment is often wrong, and necessarily so, is shown by the frequency of recurrence under these methods even in the best hands.

7. It is applicable to all cutaneous carcinomata in which the deeper structures are not involved, and which do not extend far onto the mucous membranes.

8. It is easy of application; it is safe; it is only moderately painful; and its results compare favorably with those obtained with other methods.

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### More "Tips" For Practitioners, On The Diagnostic Value Of Facial Expression.

Dr. F. E. Wiedeman (*Indiana Medical Journal*, January), in a paper read before the Vigo County Medical Society on this subject, generalized some often neglected information as follows: He said that to the casual observer the tuberos, thickened, or flat nose meant nothing more than uncomeliness, but to Kaposi it meant intemperance, struma, or syphilis. Were we to be consulted for hæmorrhoids in a woman presenting a red-tipped nose, we should be justly criticised by our wiser colleague if we did not give attention to the digestive tract.

Laycock placed great stress on the development of the external ear as significant of a corresponding development of the brain, the circulation and nutrition of which coincided to a similar state in the encephalic tissue. In what way the confluent ear and adherent lobule were often associated with cerebral deficiency he could not tell, but such was the case.

Any shrewd diagnostician could make the diagnosis of gout by observing that characteristic tense, red, and shining skin of the ear; or from the presence of small concretions beneath the skin of the helix; and there could be no doubt of a diagnosis on seeing the hæmatoma auris, or insane ear.

Much attention had been called to the diagnostic value afforded by the teeth, especially in regard to syphilis. He well



remembered how much stress his professor of dermatology gave to the crescentic notch in the incisors, a condition almost absolutely diagnostic of inherited syphilis. Yet, he said, we must not confound the syphilitic teeth with the pitted or craggy teeth, as they signified one of the various cachexiæ, and had no relation to syphilis.

Although the eye had unlimited expression, yet its diagnostic value was great—so great that no one would offer the diagnosis of jaundice or profound anæmia or narcotic poisoning without first consulting the eye. He who once saw the prominent, staring eyeball would never need to be told that the case was one of exophthalmic goitre. The altered appearance of the eye in cataract, pterygium, or glaucoma needed no description. If we remembered the origin and distribution of the third, fourth and sixth nerves, we could very often surmise a diagnosis. The two forms of arcus senilis, the fatty and calcareous, were interesting, but must be carefully separated. The fatty form was usually associated with fatty degeneration of the heart, while the calcareous variety was consistent with excellent health.

In considering the innervation of the face, we might expect to find the evidence of anxiety and cerebral irritation in the upper facial zone, about the forehead and eye, and the expression of bodily pain in the lower half around the nose and mouth. We should as readily expect to find the elevated upper lip and partial exposure of front teeth in a case of peritonitis as we expected to find abdominal tenderness.

The spasmodic "grin," risus sardonius, was almost diagnostic of tetanus, and what skilled accoucheur could not determine the welfare of his patient by closely observing her facial expression?

In diseases of children, facial expression was of the utmost importance, and was entitled to special study and consideration. A non-observing physician would never be skillful in treating infantile diseases. To that physician lividity induced by exertion and excitement, with normal respiration, meant little, but the observing physician had learned that it indicated malformation of the heart and vessels.

Temporary lividity sometimes occurred in acute diseases. What did the congested cheek of the child mean? We all expected to find in such conditions a febrile or an inflammatory

disease, as surely as we looked for cerebral disease in transient circumscribed congestion of the face, ears and forehead.

Other diagnostic signs in cerebral diseases were the oscillation of iris, inequality of pupils and drooping of upper eyelids. Dilatation of the alæ nasi during inspiration, with a contraction of the eyebrows and a countenance indicative of suffering, were associated with severe inflammation of the respiratory organs. Why did we anxiously ask the mother if the baby had tears during the act of crying? Because we had observed that the absence of tears meant a severe and probably a fatal prognosis.

In severe diarrhœal troubles the rapid wasting of the features, causing deep suborbital depressions, prominence and pointedness of the cheek bones and chin, and hollowness of the cheek, were certainly too well-known to need more than mention.

Hypertrophy of the brain was denoted by great expansion of the cranium above the ears, with but slight, if any, enlargement of the frontal portion.

If we were asked as to a prognosis in regard to an infant suffering from some cerebral or intestinal maladies, we should have no hesitancy in pronouncing a most unfavorable prognosis were we to find a thick Meibomian secretion of a puriform appearance collecting between the eyelids.

Alteration of the face from facial paralysis, according to some writers, was of little account save for the pictorial effect; but when we stopped to think and remember the origin of the foramen of exit, the distribution and function of the cranial nerves, to his mind we need know little more for a correct diagnosis and prognosis. For example, in a case of facial paralysis the patient presented a striking condition. The right half of the face was expressionless; the wrinkles in the forehead were erased; the eye was abnormally wide open and possibly watery; the corner of the mouth drooped, and the patient was unable to completely close the eye, and complained only of tenderness and pain in the right ear; still, he was anxious to know if he would always remain paralyzed. What were we to do? First, ascertain the muscles involved; know the anatomy sufficiently well to give each muscle its respective nerve; then trace the nerve peripherocentrally through the substance of the parotid gland, the stylomastoid foramen, the aqueductus Fallopii, emerging through the meatus auditorius internus to its origin between the

olivary and restiform bodies. But long before we got to its origin we might discover in the region of the petrous portion of the temporal bone some trouble with the mastoid cell or some carious condition of the petrous bone. We should then have no difficulty in giving a prognosis.

Of course, in mild forms of facial paralysis, usually of a rheumatic type, the affection was usually referred to the facial muscles; but, as a rule, there was no difficulty in distinguishing between mild facial paralysis due to peripheral irritation and one of severe form where there was complete reaction of degeneration in the nerve and muscle. In connection with severe neuralgia, there might occur a contraction resulting in what has been called "histrionic spasm."

Dr. Ord's description of myxœdema was so full, and showed so clearly the importance of the study of physiognomy, that the author reproduced it *in extenso*:

The face, said Dr. Ord, was swollen in every feature, so as to suggest the existence of renal disease; the swollen skin was singularly waxy looking and anæmic, and the swelling affected dependent and non-dependent features equally. Thus the upper and lower lips were uniformly enlarged; the alæ nasi were thickened and broadened; the ridges of expression were blurred or coarsened, or the lines obliterated. The cheeks were overspread with a dull pink flush, abruptly limited toward the orbits, and standing in vivid contrast with the anæmic skin around. The face wore a fixed, heavy and withal most sad expression.

If we would cultivate the faculty of observation more, Dr. Wiedemann said, we could sit in our office and read the diagnosis of almost all diseases on the physiognomy of our patients.

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### Lateral Curvature of the Spine and Pott's Disease.\*

By A. M. PHELPS, M. D., NEW YORK CITY.

In presenting this subject to you, I wish to give some practical points which, although not new, must be remembered in order to treat these cases intelligently. It has been but a few years since the treatment of these affections was a bugbear to the general practitioner, who sent every case to the specialist.

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\*Abstract of remarks made before the Richmond Academy of Medicine and Surgery, January 24, 1899.

Now, however, with a better understanding of what they are and their remedy, he attends them himself.

Regarding Pott's disease, any stated paper would take at least a week to read. I shall lay before you some material and a few facts, which will cover the subject well. So many conditions are described as Pott's disease that it is first fitting to say that the true one is tubercular unquestionably; those not tubercular are not Pott's. The disease was described by Pott as tubercular disease of the ends of the bone or cartilages. Following typhoid fever, there may be acute pain from absorption of the results of inflammatory changes in Peyer's patches, but it is septic. Then mycosis may afford opportunities for mistakes, or a child may suffer an injury, an abscess may result with development of septic symptoms, but this trouble is osteomyelitis, not Pott's disease.

ETIOLOGY.—It is a true infection of the bacillus tuberculosis into a focus of previous inflammatory action; that it inoculates tissues not embryonic, is impossible. As the area of inflammation extends inoculation takes place, with a destruction of bone, formerly termed caries, but this term had better be dropped. The disease may attack the intervertebral cartilages. Why is it that of two children receiving an injury one will develop Pott's disease and the other not? Because the former is strumous. Struma is a condition of the protoplasm making up the ultimate cell; it is a state in which one cell succumbs to germ life and the other resists it. It is born with the child, and is seen typically in the slums of any large city, being imported to this country by the people who lived in the walled cities of Europe. It will take America 1,000 years to grow children free from this condition.

Here is a preserved specimen of the spine (showing it) taken from a patient with Pott's disease, in which one vertebra is destroyed and its neighbors are consolidated, showing the projection of the spinal processes posteriorly. It is typical. Here is one (showing it) of rheumatoid arthritis, which might have been taken for Pott's disease. This illustration shows destruction of the cord from projection of bone into the canal. And here is a case of extreme kyphos, but without pressure on the cord.

DIAGNOSIS.—Lateral curvature differs from Pott's disease in that it is never produced by inflammation or disease of the



spinal column except rickets. Positions in utero produce it, as in short leg. Frequently, it is tried to diagnose lateral curvature when Pott's disease is present. It is a symptom of the latter. A diagnosis of this kind would result disastrously, because the treatment of the two differs. It must also be diagnosed from pseudo-hypertrophic paralysis.

Before deformity begins is the correct time to make the diagnosis. (After deformity has occurred it is easy.) In the beginning there is difficult breathing (often treated for asthma or worms). If the child is lifted it will cry. It has "bellyache," and it holds its hand flexed to its side. There never was disease of a joint in which motion was not limited from muscular spasm. If the spine is flexible, it is not Pott's disease; if it is rigid, you may be absolutely certain it is. This boy (exhibiting a negro youth) has a flexible spine, although lateral curvature is present. If a baby has Pott's disease, and you raise it by its head, it will come up stiff; if not, it will roll up like a ball.

There is always pain (usually anterior) in Pott's disease, but not in lateral curvature. If high up, it is in the chest; lower, in the stomach; still lower, in the abdomen. After the case has gone on, there occurs muscular atrophy and then deformity, but no swelling. On one side the bodies of the vertebra are absorbed, but on the opposite side they are normal.

There is not a single straight spine in the world; if so, a man would break his head every time he jumped six feet. Every lateral curvature to be curved must have a compensating curve, so as to allow the vertical through the centre of gravity to fall between the feet. In some patients, *e. g.*, those with rickets, the curvature is due to pressure. Ossification is sometimes due to central nerve lesion. Other curvatures may be caused by injury.

Treatment must be based on rational principles. I would treat lateral curvature with gymnastics and a support to remove pressure. Pott's disease is to have the same treatment as a broken leg—*i. e.*, fixation, to give nature a chance to repair.

LATERAL CURVATURE.—Some say that every brace produces atrophy; others, that bracing is all that is required to remove pressure and prevent absorption. Bracing, properly done, does not produce atrophy. A very good plan before beginning treatment is to determine the extent of bone changes. Have the patient to bend forward; then the application of a straight line

along the back will show the extent of deviation. Find the size of the vertebra and then brace. The diameter of the column is usually two inches. If deviation is one-half of this, a mechanical appliance is absolutely necessary to obtain stable equilibrium, producing thus one curve to balance the other.

A child under three years can not be braced, for the pelvis is too small as compared with the thorax, and the retaining strap will slip. Put on a Sayre's cuirasse or a plaster-of-Paris portable bed. The latter is also of benefit in Pott's and hip disease. I got the idea from observing an Indian squaw carrying her baby.

Regarding spinal bracing, where the band around the pelvis is narrow and small there is tilting. I believe that suspension and then fixation is necessary. The Helsing corset was invented in 1764 and forcible replacement in 1768 and then abandoned, and we will have to do likewise. Sayre was the first man in this country to make a suitable apparatus for Pott's disease and lateral curvature—the plaster-of-Paris corset. Notwithstanding that it is heavy, cumbersome and wears out, it is the best of all braces. He marked a new era in the treatment of these diseases when he suspended the patient and thus removed the pressure. Afterward it was sought to use other materials, and then came leather and rawhide, which proved valueless.

I went to Odessa to learn to make the wood corset, and was pleased with it, but as soon as perspiration occurred, its shape changed and the patient became shorter. Then I invented the apparatus which I here exhibit—viz., the aluminum corset. Its life is from fifteen to twenty years. It was first made in lateral halves, but, proving cumbersome, the duplex hinge was added, and now it can be put on and laced as the ordinary corset. In lateral curvature, with proper gymnastics, it will cure.

The new operation of forcible replacement was used by Hippocrates 500 B. C., forgotten, revived in the time of Ambroise Pare (fifteenth century), again forgotten and finally revived recently. Any authority commenting upon it says the results are too good to be credited. I am very sure that old cases with ankylosis, great deformity or abscess should not be touched. In beginning cases, pushing and then treatment as described before may avail, but the vertebra must be wired. Even then in two or three years they will be found bent.

DISCUSSION.—Dr. Stuart McGuire said that he had listened with interest and profit to Dr. Phelps' admirable discussion; that the subject of Pott's disease was one of peculiar interest to him, as he had been the victim of the disease during childhood; that he had been a patient of Dr. Lewis Sayre; that he had been the subject of many experiments, and that he believed he was the original case upon whom the plaster-of-Paris jacket was applied; that although twenty-five years had elapsed he could remember how Dr. Sayre placed him face downward across his knees, and, by separating his legs and producing extension, thus relieved pain and reduced deformity. This was the inception of a principle now carried out by suspension. That he remembered how Dr. Sayre placed his broad hands on either side of the spinal column, and, by gentle pressure, maintained the correction secured and gave support and immobilization to the back. This was the inception of the principle now carried out by the plaster cast. Dr. McGuire said that the first attempt at the practical application of the brace consisted in laying him upon a table and producing extension by manual traction on his head and feet, and then the application of alternate layers of squares of flannel and wet plaster to his back. This formed a "turtle shell," which was held in place by circular turns of a cotton bandage. Dr. McGuire then outlined the evolution of the plaster jacket, and spoke of its advantages—cheapness and effectiveness, and of its disadvantages—short life and lack of cleanliness.

In regard to the aluminum corset invented by Dr. Phelps, he said that it was a perfect substitute for the plaster brace, combining all of its virtues and having none of its vices; that unfortunately, owing to its cost, it would never be widely adopted, but for the well-to-do it was a luxury which should not be lost sight of.

In conclusion, Dr. McGuire spoke of the muscular atrophy and diminished chest expansion which resulted from the long use of any brace, and of the advisability of taking them off as soon as they could safely be discarded. He asked Dr. Phelps what were the evidences of cure of Pott's disease and what was his rule as to the length of time a brace should be worn.

Dr. J. A. Hodges said he would be glad if Dr. Phelps told the ultimate results of lateral curvature and Pott's disease on

respiration, and also the forms of paralysis in patients left untreated. It was surprising that there was not more paralysis resulting from destruction of the vertebra and from pressure on and degeneration of the spinal nerves.

Dr. George Ross reported the following case: A theological student went coasting the hillside and caught cold. He was unconscious of having sustained an injury, and yet in a few days he found himself unable to walk up the steps. His feet were leaden. He was placed in the hospital of the school, where he remained for six weeks. No improvement following the treatment advised, he was sent to a hospital in Baltimore. Paraplegia with myelitis was diagnosed, and a fatal prognosis made. Two months of observation failed to warrant a change of opinion, and the patient was sent home to die. Being the family physician, Dr. Ross was summoned to see the patient, and found him with thighs flexed on the abdomen, knees close under his chin, limbs in spastic rigidity, emunctions paralyzed and pains excruciating. The history furnished seemed to warrant the conclusion that the case was one of acute ascending myelitis, with paralysis from pressure. Months rolled by without material change other than the advent of girdle pains of the abdomen and chest and harassing bronchial cough, with difficult asthmatic breathing and repeated threatenings of impending suffocation. Then there appeared a swelling near the cervico dorsal vertebral junction and a culminating abscess, which was lanced. It was long in healing, and, though naturally to be looked for, there is no record of necrosing bone escaping from its cavity. The presence of this abscess proved clearly to his mind that the case was one of Pott's disease of the upper dorsal vertebra. No mechanical appliance was at any time used, and the reliance for treatment rested solely on spinal counter-irritants, constitutional reconstructives and supportives and an intelligent dietary. The surprising outcome of the case is that to-day, though deformed by a posterior upper dorsal curvature, the patient is healthy and vigorous, and, while engaged in no special work, is quite competent to do many things.

Dr. Phelps said, in closing the discussion, that the mode of manufacturing the aluminum corset was to extend the patient and apply the bandages so as to make a plaster cast. This was cut off, stuffed with oakum and plaster-of-Paris, after which



shellac was applied to the stuffing. Sheets of the softest aluminum were laid on the mold and shaped with a wooden hammer. It was then coated inside and out with white shellac and alcohol to prevent the action of perspiration. He said he had hope that as time progressed the apparatus could be made and sold at a lower price.

How aptly Dr. McGuire tells of Dr. Sayre! The orthopedic hand is the best brace made; it can mold the corset to fit, and is in partnership with all the ideas conducive to best results.

The indications of cure are the same as those of hip joint disease. Here I never remove the brace until the limit of movement is increased, and so I do in Pott's disease, which is never cured in less than three years.

Atrophy is always produced by degeneration of the nervous end plates in the muscles. Braces do not produce atrophy. If a brace gives room in front there is no interference with the play of the chest.

The wire corset does not support as it should. Patients using it are two inches taller when placed in a plaster corset. The aluminum cast fits the patient like a French corset.

A complete cure can not be produced in lateral curvature, because the ribs overlap, the intercostal muscles are shortened and the spaces obliterated. The ribs can not be separated except by means of the knife, and if this is used the patient dies.

Concerning paralysis, I will venture to say that from 15 to 20 per cent. of patients afflicted with Pott's disease manifest it at some stage, it varying from involvement of groups of muscles to total paralysis. Of the estimated 20 per cent. 95 per cent. will recover without operation from the complication; the remainder will not. It is not always due to bending; sometimes it is from involvement of the canal, producing thickening and pressure myelitis. In some cases I have seen tubercular meningitis; in others penetration of an abscess. My observation is that those cases attended by bladder and rectal incontinence never recover, but I have seen recovery where these organs were only irritated.

Dr. Ross' case was one of osteo-myelitis recovering without treatment, but this should not be an argument against treatment.—*Virginia Medical Semi-Monthly.*

### Smallpox.

**DEFINITION.**—Smallpox is an acute contagious, infectious disease, characterized by an eruption which passes through the stages of macule, papule, vesicle and pustule, ending in desiccation and desquamation.

**ETIOLOGY.**—The contagious principle, probably a microbe, has not been discovered, but it is contained in the exhalations of the skin and lungs and especially in the pustule and dried material following desiccation and desquamation, and may live for months on clothing or furniture. The contagium is tenacious, and may be conveyed by persons and by fomites, such as hair, clothing, paper, letters, furniture, etc., or it may spread through the air by means of the wind blowing the dust containing the virus. The disease is probably contagious during the first four days previous to the appearance of the eruption, but this has not been proved. A few persons seem to possess a natural immunity to the disease. No age, race, sex or climate is exempt. It attacks the foetus in utero when the mother has the disease. It is more common among the colored races, probably on account of their condition of living in small, crowded rooms, with slight regard for cleanliness. It is worse in cold than in warm weather because of closed houses and aggregation of people.

**SYMPTOMS.**—True smallpox (*variola vera*) incubation.—The period of incubation varies from seven to twenty days, the average being twelve days. Inoculation, which might occur accidentally in obvious ways, shortens the time to seven or eight days. During this period there are usually no symptoms—sometimes a little malaise or gastric disturbance.

**Invasion.**—This is sudden, beginning with a chill which may be followed by others, severe aching in the “small of the back,” and sometimes the limbs; intense headache, vomiting and fever 39.4 deg. to 40 deg. C. (103 deg. to 104 deg. F.) The pulse is rapid and strong. Convulsions may occur in children.

**Eruption.**—**Initial Rash.**—When this occurs it usually appears on the second day in the form of a diffused redness—the scarlatinal form—or of a macular eruption resembling measles. More rarely it may have the form of urticaria. It appears in about 13 per cent. of cases (Osler), usually on the inner surface of the thighs, the lateral thoracic regions near the axilla,

lower part of the abdomen and occasionally on the extensor surfaces of the knees and elbows.

**Distinctive Eruption.**—In the discrete or mild form small spots are seen on the third day on the forehead near the hair, around the mouth and on the wrists, and the temperature falls, which up to this time has been continuously high.

The eruption becomes general over the body in twenty-four hours, and at this stage the disease strongly resembles measles. On the fourth and fifth days of the disease the eruption is papular and the characteristic “shotty” sensation is obtained by passing the fingers over the skin. During the next twenty-four hours the papules become vesicles, with clear summits. From the sixth to the eighth day the vesicles change to pustules with a slight depression in the center (umbilicated), each pustule being surrounded by a red border or halo. At the same time the temperature rises again, the secondary fever or *stadium suppurationis* and the general symptoms return. The pustules are especially thick on the face, which is much swollen and disfigured.

About twenty-four hours before its appearance on the skin the eruption develops on the mucous membranes of the respiratory and alimentary tracts, and may be seen on the soft palate, fauces, larynx and trachea. The inner sides of the thighs and axillary regions, the sites of the initial rash, are usually free from the characteristic eruption of smallpox.

**Desiccation and Desquamation.**—After four or five days from their appearance (twelfth or thirteenth of the disease) the pustules begin to dry up. A few days later the scabs begin to fall off, first on the face and later on other parts of the body; the temperature falls to normal and convalescence begins.

**Confluent Form.**—The initial symptoms are more intense, the eruption occurs a little earlier. The papules are discrete but the vesicles and pustules coalesce, especially on the face, hands and feet, but usually remain discrete on the trunk. The temperature does not fall to the same degree on the appearance of the eruption as in the discrete form, and the secondary fever is higher, more prolonged and attended by graver constitutional symptoms, such as swelling of the lymphatic glands, salivation, diarrhea and delirium.

When death occurs it is usually in the stage of maturation,



about the tenth or eleventh day. When recovery takes place, the process of desiccation and desquamation is complete in three or four weeks; sometimes it may extend to six or eight weeks.

Hemorrhagic Smallpox.—This occurs in two forms:

(a) *Purpura variolosa* (black smallpox), in which the symptoms appear early and death may occur in from two to six days. Symptoms are the same, only more intense, and the eruption appears on the second or third day in the form of a diffuse hyperemic rash with punctiform hemorrhages, especially in the groins. The rash extends, the hemorrhagic spots increase in size, ecchymoses appear on the conjunctivæ, the skin may have a uniformly purplish hue and hemorrhages may occur from the eyes, nose, stomach, lungs, urethra and uterus.

(a) The other hemorrhagic form (*variola hemorrhagica pustulosa*) progresses as in ordinary smallpox to the vesicular or pustular stage, when hemorrhages take place into the pocks or from the mucous membranes. The majority of cases in which bleeding from the mucous membranes takes place die in from seven to nine days. Hemorrhage into the pocks is frequently followed by recovery.

Varioloid.—This is the modified form of smallpox which occurs in persons who have been successfully vaccinated. It is none the less smallpox because of its modified form, and the most virulent form of smallpox may arise from exposure to varioloid.

Symptoms may be severe with temperature reaching 39.3 deg. C. (103 deg. F.), but usually they are mild. The eruption appears on the third or fourth day and the fever falls at once and the patient feels comfortable. The papules are few in number, scattered, and may be limited to the face and hands. Vesiculation and suppuration takes place rapidly and there is no secondary fever. The eruption does not pass through the regular stages, many of the vesicles disappearing without suppuration and scars seldom result.

Complications.—Respiratory Organs.—As a consequence of the eruption on the mucous membranes, laryngeal ulcerations with perichondritis and œdema of the glottis, bronchitis, lobular and sometimes lobar pneumonia may occur.

Digestive System.—The eruption in the throat is some-

times followed by purulent otitis, parotitis and ulceration of the pharynx. The spleen is nearly always enlarged and often the liver.

Circulatory System.—Except the slight degeneration of the muscular fiber, pathological changes in the heart are rare. Pericarditis sometimes occurs and occasionally endocarditis.

Nervous System.—Convulsions frequently occur in children, and delirium in adults which may end in fatal coma. Post-febrile insanity and occasionally epilepsy occur during convalescence. Neuritis, as in diphtheria, may affect the pharynx, or it may be multiple in the extremities. Hemiplegia and aphasia, the result of encephalitis, rarely occur.

Joints.—Arthritis, which may be suppurative, and necrosis of the bone are sometimes met with.

Skin.—Boils are frequent, acne, ecthyma and local gangrene sometimes occur, and occasionally after desquamation a secondary eruption resembling smallpox (recurrent smallpox).

Urinary Organs.—Albuminuria is not uncommon, but true nephritis is rare.

Special Senses.—Catarrhal and purulent conjunctivitis is common in severe cases, leading sometimes to keratitis with ulceration, perforation and loss of the eye. Iritis and choroiditis may also occur. Otitis media is an occasional complication from extension through the Eustachian tube.

DIAGNOSIS.—The disease must not be mistaken for measles, scarlet fever, chicken pox, impetigo contagiosa, syphilis, cerebro-spinal fever, typhus fever or glanders. The severity of the attack, the group of symptoms, chill, backache, headache, vomiting and high fever, 39 deg. to 41 deg. C. (102.2 deg. to 105.8 deg. F.) continuing three or four days and falling on the appearance of the eruption should excite suspicion of smallpox, especially when this disease is prevalent.

Measles.—In measles, the period of incubation is a little longer than in smallpox—about fourteen days. The stage of invasion more nearly resembles a cold, with shivering rather than a definite chill, sneezing, redness of the eyes, running at the nose and cough. The eruption occurs about the fourth or fifth day, and the condition of the patient is not much improved until the sixth day, when the eruption is well developed. By the fifth or sixth day at the latest the diagnosis can be made. The erup.

tion of measles having no tendency to become vesicular and is only slightly papular.

Scarlet Fever.—The period of incubation is much shorter, one to seven days—average four—and the stage of invasion is short, with high temperature and sore throat. The eruption appears early, on the second day, first on the neck and chest and spreads rapidly over the face and body, in the form of a bright red or scarlet rash, like erythema, with a slight tendency to the formation of papules. It gradually fades after two or three days. The tongue has a characteristic appearance—the “strawberry” or “raspberry” tongue, owing to the projection of the enlarged red papillæ through the coating of the tongue. Albuminuria is a common symptom.

Chicken Pox—(Varicella.)—This is more strictly a disease of children, affecting especially those under six years of age. The incubation period is rather longer than that of smallpox—ten to fifteen days. The initial symptoms are comparatively mild, with fever, vomiting, and pain in the back and legs. Sometimes convulsions occur in children. The eruption appears during the first twenty-four hours, on the back, chest, or face in the form of red papules which in a few hours become vesicles filled with a clear or turbid fluid. They are seldom umbilicated, are scattered, more superficial than the vesicles in variola, and the intervening skin is neither inflamed nor hyperemic. In three or four days the eruption dries up into scabs, which fall off leaving little or no scarring. Varioloid may be mistaken for this disease.

[The observation of the Marine-Hospital Bureau has been that in the majority of mistaken diagnosis with regard to smallpox the disease has been called chicken pox. Chicken pox is a contagious disease and many local health authorities require its isolation. Particularly when smallpox is prevalent, any case of supposed chicken pox should be isolated and guarded as if it were smallpox, at least until the diagnosis is proven beyond doubt.]

Impetigo contagiosa more nearly resembles chicken pox than smallpox. The eruption appears without constitutional symptoms—occasionally there are slight febrile disturbances and malaise coincident with the appearance of the eruption which is found on the face, scalp, hands, fingers, and sometimes the trunk, in the form of primarily small, pin head sized vesicles or



vesico-papules, flat or slightly raised and rapidly enlarging into blebs of the size of a split pea, or finger nail containing clear fluid or pus. The eruption occurs in patches or groups as in herpes, the vesicles being at first discrete and usually umbilicated, but later coalescing and as desiccation takes place forming large crusted patches.

Syphilis.—The eruption of syphilis is sometimes exactly like that of smallpox with umbilicated pustules. The history, with the absence or slight character of the fever and other constitutional symptoms, serve to make the different diagnosis.

Cerebro spinal fever.—The temperature is usually not so high, extremely severe headache, especially in the back of the head, intolerance of light and sound, strabismus, delirium, coma, and the early appearance of stiffness with pain and contraction of the muscles of the neck and back characterize the disease.

Typhus fever.—In this disease, mental symptoms appear early, such as delirium, often maniacal, the temperature rises steadily, usually to the fifth day when it may reach 41.6 deg. C. (106.88 deg. F.) and the eruption appears about the third to the fifth day, first on the abdomen and chest, rapidly spreading to the extremities and face in the form of a fine irregular, dusky mottling as if beneath the skin, and distinct papular rose spots, some of which change to petechiæ from hemorrhage.

Glanders.—In glanders the eruption appears on the face and about the joints, at the same time there is ulceration, swelling, and a muco-purulent discharge from the nose. The period of incubation is short, three or four days.

VACCINATION.—The most efficient means for preventing the spread of smallpox is by vaccination. The protection, provided the virus is pure, is believed to be as complete against contagion as is that of smallpox against a second attack, though not of as long duration, but revaccination, whenever smallpox is prevalent in a community, will continue this protection indefinitely. Therefore, the first measure after isolation of a person suffering with smallpox is the immediate vaccination of persons who have been exposed to the disease and revaccination in five or six days if there is no indication of the previous virus having been effective.

In order to secure pure vaccine the supply should be obtained from an accredited source, and as bovine virus only is now used the dangers which heretofore existed from arm-to-arm vaccina-

tion are eliminated. Glycerinized lymph only should be used.

The operation of vaccinating a person, although fairly well understood, may be briefly described as follows:

Usually the left arm above the middle third is selected although in some cases the wishes of the person receiving it may be consulted. The part to be vaccinated is bared and the skin rendered antiseptic by means of soap and water or alcohol, after which, if a needle or lancet is used it should first be passed through a flame or sterilized by means of alcohol, and the part scarified in one or more places; the virus is then rubbed in. Of course, it is understood that the same needle shall be used on but one person, and if a lancet is used it should be sterilized for each case. If the vaccination has been successful it will be found that in the course of three or four days a small papule will appear, which soon after becomes vesicular, and is surrounded by a circumscribed areola; this gradually increases until the seventh or eighth day; in the meantime a crust forms which in due course falls off, leaving the characteristic scar resembling the pits of smallpox, the whole process occupying about three weeks.

Due care should be exercised to prevent the vaccination from being irritated or the "seal" from being broken and to prevent the wound from becoming infected. A vaccine shield is best for this purpose, and it is recommended that either one provided by the dealers or improvised be used, but if a vaccine shield is not used care should be taken, as above stated, to prevent the breaking of the "seal" and undue rubbing of the part by the clothing. Adhesive plaster should not be used for this purpose.

In the communities where compulsory vaccination is not required for children going to public schools it will frequently be found that a large proportion of the pupils, unless an epidemic of the disease has recently occurred, have not been vaccinated, and it is among these that smallpox is more apt to be spread.

A thorough house-to-house inspection, isolation, and vaccination will soon put a stop to the epidemic.

The truth about vaccination.—Dr. Bizzozzi, in a recent lecture delivered at Rome, recalled strikingly to his audience the success of vaccination in Germany. He said: "Germany stands

alone in fulfilling in a great measure the demands of hygiene, having in consequence of the calamitous smallpox epidemic of 1870-71 enacted the law of 1874, which makes vaccination obligatory in the first year of life, and revaccination obligatory at the tenth year. What was the result? With a population of 50,000,000, having in 1871 lost 143,000 lives by smallpox, she found by her law of 1874 the mortality diminished so rapidly that today the disease numbers only 116 victims a year. These cases moreover occur almost exclusively in towns on her frontier. If it were true that a good vaccination does not protect from smallpox, we ought to find in smallpox epidemics that the disease diffuses itself in the well vaccinated no less than in non-vaccinated countries. But it is not so. In 1870-71, during the Franco-German War, the two people interpenetrated each other, the German having its civil population vaccinated optionally, but its army completely vaccinated, while the French (population and army alike) were vaccinated perfunctorily. Both were attacked by smallpox. The French army numbered 23,000 deaths by it, while the German army had only 278, and in the same tent and breathing the same air, the French wounded were heavily visited by the disease, while the German wounded, having been vaccinated, had not a single case."—*Public Health Reports*.

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### Pneumonia.

I formerly thought that pneumonia was a self-limited disease, but my experience proves that it is not necessarily so. I have seen badly treated cases run many weeks, and also have seen other cases recover in two weeks without any treatment. This led me to believe the disease could be aborted or cut short, and for the past three years I have demonstrated time and again that the disease was not a self-limited one, but was amenable to proper treatment, as the following cases will show.

Eddie F., aged 12, first day found him with temperature 104 degrees, rapid breathing, characteristic "brick dust" sputa, great pain in right side, both lungs engorged, pulse 130 with great restlessness. I gave viskolein solution, hypodermically 15 minims, and of the viskolein tablets and the viskolein capsules one of each every four hours for the first twenty-four hours.



As the bowels were constipated I ordered one teaspoonful of Phosoda to be given every four hours. The next day found the temperature down to  $101\frac{1}{4}$  degrees, pulse 110, and breathing less laborious. I ordered the same treatment continued and gave another hypodermic injection of the viskolein solution of 15 minims. I also ordered a sponge bath once in three hours and cold cloths placed on the forehead and over the heart. The next morning found the temperature down to 99 degrees, pulse 85, no pain, respiration easier, and patient feeling better in every way. I gave him another hypodermic injection of viskolein solution, continued the capsules only, as before, one every hour, but not the tablets. The next day the boy was convalescing and he made a rapid recovery.

The above is a typical case of pneumonia aborted. I have had many cases very similar, and this is usually my *modus operandi* with them all. Sometimes I administer a few drops of a solution of nitroglycerine and strychnine with the hypodermic injection of viskolein when I have a case of very weak heart. I sometimes continue the tablets and capsules together to the end, but I generally discontinue the tablets after the first fall of the temperature to the normal, but continue the capsules to the end always. I sometimes increase the dose, giving two of each kind as well as increase the frequency of the administration, say, to every two hours, but it is not often necessary.

Let the diet be light, keep the bowels open with Phosoda, push the viskolein treatment as above described, give all the cold water the patient desires, use no hot poultice jackets or hot formentations of any kind; but instead give frequent sponging of the entire body. With this treatment you can abort any case of pneumonia, where the patient has sufficient vitality left to allow nature to assert herself after the disease is eradicated. —Geo. H. Rice M. D. in *Wisconsin Medical Recorder*.

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### Papilloma of The Nasal Cavity.

#### Author's Abstract.

Richmond McKinney, of Memphis, reports, in the *New York Medical Journal* of March 4th, 1899, a case of papilloma of the nasal septum. The extreme rarity of this growth is made ap-

parent by the fact that such an astute observer as Bosworth, in over two hundred cases of benign tumors of the nose has seen but one case of papilloma, and an eminent English observer, Watson Williams, of Bristol, reports having seen but two cases of nasal papillomata in his entire experience. While Hopmann has reported a larger percentage, having found in a total of four hundred and thirty cases of benign nasal tumors, seventy-eight of papilloma, Jonathan Wright, of Brooklyn, in more recent investigations, repudiated Hopmann's result by clearly showing that this observer had discribed the ordinary polyp formation which had, from pressure, taken on a false papillomatous appearance. We are therefore unable to say how many cases of true nasal papillomata have been observed. The inference is, however, that a large percentage of the cases reported by Hopmann and others were not instances of true papilloma.

McKinney's case occured in a medical student of twenty-four years of age, who sought relief from nasal stenosis occasioned by the growth. This latter was about of the size of a coffee bean attached to the upper and interior portion of the cartilagenous septum, behind the tubercle. Removal was effected with the cold snare and the base canterized with the electrocautery. Six months later the growth had not recurred. Excellent photomicrographs of a section of the papilloma illustrate this article.

OF late the journals have been filled with articles on Lithaemia and the weight of evidence goes to prove that the dietary is the prime cause of all the trouble, though the mental state has given proof of its potency as a factor also. There can be no question about the importance of dietary, but it does seem curious to us why, if this be such a decided influence, it is that negroes do not suffer from this disease, nor have we ever heard of the Esquimaux being victims, though on this particular we tread lightly as our present knowledge of our hyperborean friends is extremely limited. But it is a fact that we have never seen or heard of a case of gout among our numerous negro population and certainly for the past two hundred years a meat dietary, especially salt meat at that, should not have failed to make an impress of lithaemia upon them. The darkey is notoriously a meat eater and hence our quandry.

## Editorial.

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IN last month's Journal we had something to say about abortion and the duty of the Government in the premises, but since writing that article our attention has been called to a section in our own State code which completely covers the points



and it now rests with our district attorneys to take proper action to put a stop to at least a part of it. The section is as follows: Section 1217 Annotated Code of Mississippi. A person who sells, lends, or gives away, or in any manner exhibits or offers to sell, lend, or give away, or has in his possession with intention to sell, lend, or give away, or advertises, or offers for sale, loan, or distribution any instrument, or article, or drug, or medicine, for the prevention or conception, or for causing unlawful abortion, or who writes, or prints, or causes to be written, or printed a card, circular, pamphlet, advertisement, or notice of any kind, or gives information orally, stating when, where, how, of whom, or by what means such article or medicine can be purchased or obtained, or who manufactures any such article or medicine, is guilty of a misdemeanor, and, on conviction, shall be punished by fine not less than twenty five dollars nor more than two hundred dollars, and by imprisonment in the county jail not exceeding three months.

\* \* \*

IN the last issue of the *Memphis Medical Monthly* is an article from the pen of Dr. J. Tackett, of Richland, Miss., in which the doctor says that the State of Mississippi licenses midwives. The doctor is mistaken in this as may be seen from Sect. 3253 of the Annotated Code which says: "Females engaged in the practice of midwifery are not prohibited from such practice, but are entitled to engage therein without a license." One of his statements about the non-frequency of puerperal fever among those delivered by midwives does not hold true as to this section of the country, or at least Biloxi, for it is the experience of every doctor here that the old women leave a train of fever and ophthalmia behind them.

\* \* \*

QUIEN SABE? Nevertheless there is something modifying the course and life history of epidemic diseases. Just look at yellow fever, smallpox, typhoid, diphtheria, tuberculosis, syphilis, and malaria. Each and every one of them appear to be milder than in the years ago. We certainly can't attribute all of it to our superior skill in their treatment, especially in yellow fever and smallpox for in both of these the mortality has been almost nil, except in certain localities, for the past two years not alone in

this country, but in foreign lands. It is true that in some places we read of smallpox killing people right along, but the past three and now going on four years of it in this country has been almost exempt from death. The Public Health Reports shows this same state of affairs to exist in Teheran, Persia, where certainly filth and squalor have full sway to make it more malignant. Of course we sanitarians attribute the disappearance, and rightly too, of certain epidemic diseases to our better modes of life in every way. To what extent is heredity making its impress upon these diseases? Personally I never have believed in all the deviltry that syphilis has been credited with and as I grow older and see more of it, the more fully convinced am I of my view. Now with tuberculosis I really believe we have made progress, not with medicine, but by following closely on the heels of nature and imitating her in the methods we have all seen do the most good. In this line is destined to mark all the success that the next decade is liable to produce, though we must give serum therapy a chance. But while an ardent advocate of antitoxin, the thought will creep in as to what extent the disease has been modified by the agents which have exerted so marked an influence on other and kindred ailments. Is the Kleebs-Loeffler really the causative agent? But we will continue the antitoxin. Diphtheria has occurred down here so mild as not to make the child sick at all hardly, and yet the bug was present. And this has occurred not once, but often. Who of us for years past has seen an old-fashioned case of chills and fever that resisted all medication? They used to be common. Let me remark here that the cure of malaria by quinine had been empirically settled long before the discovery of the plasmodium and I mean by this that some of the work in laboratories in recent years as to how quinine had best be given was long, long ago antedated by some old fellow who would fail to recognize not only a "Laveran," but even a microscope were he to meet it in the middle of the road. Railroads and other civilizing agents are daily making this a healthier and better world and the increase in life expectancy proves this beyond all shadow of doubt. Fresh air, sunshine, adequate exercise and a proper dietary, together with the peace of mind that comes or should come with a broadening civilization has for us and future generations the greatest interest of any thing on earth, especially when this

future generation business is based on the same sensible measures adopted by cattle and horse breeders to insure a constantly improving progeny, remembering always, however, that married life means more than the mere rearing of children.

\* \* \*

As this will be the last issue before the meeting of the Association in April it is well to again urge the members to attend and contribute their prorata to the success of the meeting. In the past year we have had in the state quite an amount of epidemic disease to deal with and some of them are offering as fine a field to work in as often falls to the lot of an essayist. Yellow fever, grip, meningitis, roseola, rubeola, smallpox, and each and every one of them presenting variations from classical description. This should be the best meeting in the history of the Association. With all these subjects, five members of the State Board of Health to be recommended and no dissensions to worry our souls out of us, seems as bright a prospect as could befall an association.

\* \* \*

EVERY day adds to the list of remedies brought forward as claimants for use by the busy and watchful physician. Among these some are worthy and deserve all that may be said in their favor, and these should at all times be preferred by the prescriber who should specify the maker's name, so that the results achieved may accord with claims made. Some of our big manufacturing concerns have elaborate plants and go to no end of expense to put on the market goods thoroughly reliable in every way. They go to great expense putting their preparations before the profession in a legitimate manner and it is our duty to always be sure we are using the medicine as originally brought forward to accomplish certain things and from which we are expecting certain results. Some of the modern establishments are doing their utmost to relegate the doctor to obscurity as by means of the circulars accompanying, full directions are given which each poor sick fellow thinks applies to his own case and very often he spends all his surplus before this mistake is manifest. Such concerns are on a par with patent medicines and should be treated as such by the profession.



THE recent action of the Orleans Parish Medical Society in expelling Dr. McKowen is another to add to the list of regrettable doings by doctors. To the outside world it looks very much as though the profession had lost its bearings in the crescent city and were completely under the domination of the commercial bodies which have so entirely had charge of health affairs for the past year. "By their deeds shall ye know them," and it is evident that we in the outside will have to look to the national government for protection from the officials whose own state has indicted them for manslaughter. It is all very well for the citizens of New Orleans to call the people in the parishes and other states fools, but facts are facts, and all the childlike innocence of Pres. Souchon cannot induce the people to believe that the evidence in the possession of Henry R. Carter, Surgeon United States Marine Hospital Service is false or in any way intended to mislead them as to the culpability of Drs. Souchon and Konkhe in wilfully suppressing the truth as to the existence of yellow fever in New Orleans last year. It is gratifying to know that certain members of the society were not in favor of the actions of the body and exerted themselves to prevent. We congratulate Dr. McKowen on his expulsion and earnestly assure him that it is our sincere conviction that such an expulsion were far better than a resignation. To those gentlemen who do not endorse such men or measures we refer the manly action of Dr. McKowen and respectfully recommend it.

## Therapeutie And Other Hints.

Enuresis.—Freyberger highly recommends this remedy administered as follows:

Rx.—Fl. Ext. Rhus. Aromaticæ.....	m 10
Syr. Armatici.....	m 20
Aq. Destillatæ.....	m 30

M. Sig.—This amount three times daily.

Temporally exacerbation has been noticed in some of the cases, usually cases after four to six days, stopping abruptly as a rule.—*Pediatrics*.

For dyspepsia, the following is excellent:

R.—Bism. Subnitratis.....	grs. 320
Phenolis Salicylatis.....	grs. 160
Tr. Nucis Vomicae.....	m. 100
Tr. Cannabis Ind.....	m. 45
Muc. Acaciae.....	Q. S. ad. fl. $\frac{2}{3}$ 4

M. Sig.—Teaspoonful thrice daily, after meals.

\*\*\*

As a hypodermic for purgation we have had good results from the following:

R.—Eserini Sulph.....	grs. 1-100
Strych. Sulph.....	grs. 1-100
Pilocarp. Mur.....	grs. 1- 8
Mag. Sulph.....	grs. 1
Aquae.....	m 20

M. Sig.—Use in injection and at once give five grains of calomel.

\*\*\*

In using Pilocarpine be sure that your patient is not pregnant, as its use in such cases has been followed by abortion.

\*\*\*

Disinfect urine as well as feces in enteric fever.

\*\*\*

Minute doses of ether increase protective action of hepatic cells against certain microbes.

\*\*\*

In making a diagnosis of appendicitis always remember renal and hepatic colics.

\*\*\*

In gastric hyperacidity use freely butter and cream, almost cutting off the carbohydrates, though oatmeal may be used.

\*\*\*

Albumen remaining after a nephritis has its source in a cicatricial contraction of the previously diseased tubules.

\*\*\*

Moles are carcinomatous in nature.

Flies, feces, urine and the water supply are things most needing attention in the army, on the part of the medical men.

\* \* \*

In diabetes an exclusively vegetable dietary is recommended.

\* \* \*

As a little surgical wrinkle to assist in securing asepsis, Surgeon Murray M. H. S. suggests the use of newspapers on tables where emergency work does not give time to make preparations.

\* \* \*

By placing hand on opposite shoulder and listening at the portion of lung uncovered by scapula, viz; just above and external to where the bronchial tubes are given off, there will be heard prolonged tubular breathing and fine rales on coughing thus making a diagnosis possible in tuberculosis, weeks before any other sign presents.—*Ex.*

\* \* \*

To prevent pitting in variola, open the vesicles as soon as formed and dress with bichloride solution and gauze.—Murray.

\* \* \*

For those who have to wear plates and are troubled at times with little pestiferous ulcers in the mouth, nothing surpasses the use of Eucalyptoline or Listerine on pledgets of cotton spread out so as to cover the sore.

\* \* \*

Believing in antiseptics no one little procedure carries more weight in the eyes of the sick than to see the doctor take a piece of clean tissue paper from his pocket and put a few drops of an antiseptic solution upon it and then wipe his thermometer right there where he can see it done. Every patient is thus assured of a clean instrument for his mouth; quite a satisfaction if you have ever been sick.

\* \* \*

A cheap and most efficient instrument for vaccination can be made taking ten No. 3 needles and mortising them in a piece of



cigar box top about four inches long. A shallow depression, just deep enough for the diameter of the needle, is dug in one end of the wood and another piece about an inch and a half long is placed over the depression. The depression and the needles are covered with royal glue and allowed to harden. As soon as this happens a little sand papering will give you an aseptic scarifier at a cost of five cents which is better than any that you could buy.

\* \* \*

As a little manœuvre to gain time and make clean work, push the tube of glycerinated virus through the rubber bulb before you break the ends. By this measure there are no ragged and sharp edges to get caught on the bulb as there always is if you break off the glass before inserting into mouth of bulb.

\* \* \*

Advice lately given to a class of newly made doctors:—  
 "Take as a greeting for your future, this four-square rule in your life of service—1, clean living; 2, just thinking; 3, hard work; and lastly, carefully weighted, straightly dealt,—when there is need of it,—English from the shoulder.—*Clin. Rev.—Medical Dial.*

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## Public Health.

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A MANLY MAN, AN IDEAL CITIZEN, A GOOD DOCTOR.—  
 The following is from a Macon, Miss., paper: The eruptive disease that has been prevalent in and around Mashulaville for several months and is yet existent there, is small pox. The symptoms of it were and are anomalous, so dissimilar to those taught as characteristic of it in the text books, and as observed by me in the many cases seen, and treated by me in my long professional life of 45 years, that I did not hesitate to say that it was not small pox. But as in duty bound I and my friend and deputy, Dr. B. B. Jones, of Mashulaville, have finally tested the matter by noticing the effect of vaccination, which test is conclusive. So I here, and now confess that my first diagnosis was erroneous—and state that the disease is small pox. This out-

break of it, so far, has been exceedingly mild, but it is usually a terrible disease, terrible in the suffering it causes, and in its fatality. Besides this it is loathesome and deforming. Its contagion is difficult to destroy and will remain in clothing and bedding for months, even years.

Vaccination is protective; all the civilized nations are now enforcing it. Our own state has a law for its enforcement with a severe penalty for resistance thereto. This law provides that it shall be enforced for a radius of five miles from all infected points. The state makes the chief health officer the vaccinator, but he can depute other physicians if he desires to do so. He charges individuals nothing for vaccinating, but any one can be vaccinated by any other physician if he or she so wish. My deputies are Dr. J. S. Featherston, Dr. B. B. Jones, Dr. W. A. Kellis and Dr. Criegler; the two last do not live in the county, but do much practice therein. Others will be added if needed.

I cannot too strongly urge all, who are in the infected area, to comply with the law as soon as possible. One of us will meet the people at any church, or schoolhouse in any neighborhood when notified that they will assemble there for vaccination.

Finally the virus that we use is absolutely safe and pure—furnished by the State Board of Health, and purchased from established vaccine farms of national reputation. If you fail to take advantage of this opportunity and should contract this disease, or have those whom you love suffer therefrom, the blame will be on you and not on us. We await the action of our State Board of Health as to the duty of forced vaccination.

I cannot close this article without first again urging the advantages of cleanliness and drainage and the dire results that so often follows neglect of the law of hygiene and sanitation. H. A. Minor, chief health officer Nox. Co., Miss. in—*Macon Beacon*.

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PARAFFIN A HYGIENIC COVERING FOR FLOORS.—A thin coat of boiling paraffin poured over a floor, following the grain of the wood, renders the floor proof against moisture, dust, acid or alkalies. It can be wiped up with a damp cloth or swept with sawdust moistened with an antiseptic, and then polished to a high luster with a dry cloth. The coat should be about two to

three millimeters thick and well applied, and will last for years. One kilo of the paraffin, costing 1.60 francs, will cover about four square meters. The paraffin should melt at 65 degrees C. and boil at 300. It is boiled two or three hours before being applied. All holes and crevices should be filled beforehand, and Annequin recommends for this purpose a cement made of Spanish white 540 gm., strong glue 180 gm., sienna (hydrated oxid of iron) 150 gm., umber (black oxid of iron mixed with proto. and sesquioxid of iron) 110 gm., carbonate of lime 20 gm. It is applied with a putty knife and left for forty-eight hours to harden, when it is ready for the paraffin,—*Presse Med.*, January 14.

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SANITARY PROGRESS—NOT ALL ABROAD.—A recent number of the Boston "*Herald*" remarks upon the unfortunate tendency among our American students of social subjects to believe that everything worth knowing must be sought in Europe. Foreign scientists are not thus ignorant. A young New York sanitary expert, hoping to obtain knowledge, as he thought, at the fountain head, recently traveled to London to investigate the question of purification of drinking water. The English scientific authority to whom he applied asked whether he had consulted with the Massachusetts Board of Health. Upon his confession that he had not done so, the reply was: "Well, that is where we look for information upon that subject." It is to enlighten our people on the merits of some of the administrative services they now have that a series of public lectures on "The City of Boston" has been planned.

The first of these lectures was given by Prof. William T. Sedgwick, of the Massachusetts Institute of Technology, upon the subject of Boston's water supply.

It is questionable, says the "*Herald*," whether any official department in this state has served the citizens as faithfully as has the State Board of Health. The planning of our new system of metropolitan water supply is perhaps its crowning achievement; but it has performed many other services, though less appreciated; of almost equal importance. One of these, which has had both local and world-wide benefit has been that rendered by the board in its investigation of the subject of filtration of water on a large scale for drinking purposes. The experiments upon

this subject, begun in 1888, were unprecedented in their extent and thoroughness, having had results of inestimable value, not merely to this state, but to the civilized world. They established upon a basis of accurate observation, the chemical results of filtration, its effect in eliminating dangerous bacteria, and hence the value and feasibility of using sand filters for purifying the water supply of cities. The present purification plant is the direct outcome of this investigation, a change which has reduced the annual deaths from typhoid fever in that city from an average of fifty-three to an average of only eight a year.

There are many thousands of citizens living today in Massachusetts who owe their lives to this and other scientific investigations of our State Board of Health, and tens of thousands of other who have been saved from serious illness by its work. Its achievements are something of which every citizen of Massachusetts has a right to be proud, and as nothing is so inspiring to those who are serving the public as well-earned recognition, it is desirable that the public should be better informed concerning the work that has been done in their behalf.

An illustration of the extent of prevailing ignorance on this subject is found in the fact that when, in 1895, so prominent a specialist as Dr. Albert Shaw wrote his book on "*Municipal Government in Continental Europe*," he was entirely ignorant of the very remarkable successes in its line of work which has been secured by our Board of Health. Dr. Shaw brought forward, as a means of showing the superiority of the Germans in matters of city government and in the application of practical sanitary science, the building by the city of Hamburg of a filtration plant for its municipal water supply in the years 1892-93. Dr. Shaw claimed that this Hamburg plant was the most complete and successful ever established, and that it was remarkable "for exact and novel demonstrations concerning the action of the filters upon disease germs such as were wholly unprecedented and of inestimable value."

Hamburg's filtration plant was put in the same year as that of the city of Lawrence, but it required a cholera epidemic one year and a threatened return of this visitation the next year to force Hamburg to introduce this protection against disease, whereas the filtration plant at Lawrence was put in because it was believed to be the best scientific method of treating the



water problem. Speaking of the Hamburg plant, Dr. Shaw said that its remarkable merit was found in its ability to reduce the number of cholera germs from a thousand or more to not more than four to ten germs per cubic centimetre. Our State Board of Health reported in June, 1892, that "upon filters of sand five feet deep, devised by Mr. Mills, hundreds of millions of the germs of typhoid fever have been applied to the surface, with water flowing through at the rate of one and a half million gallons per acre daily, but, though examined with the greatest care none of these germs were found in the water leaving the filters."

Dr. Shaw claims in his book that the demonstrations concerning the action of filters upon disease germs begun in Hamburg in 1893, were novel and "wholly unprecedented." The value of this claim can clearly be questioned in view of the fact before 1890 the State Board of Health had made a large number of similar demonstrations, and had in that year published a book of some 900 pages bearing upon this subject. The fact that the man who carries on the Hamburg experiments was named Dunbar, and was born in Minneapolis, may also serve to some extent to modify the claim of Teutonic superiority as founded upon this special example.—*The Sanitarian*.

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## Abstracts and Extracts.

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HYSTERIA AND NERVOUSNESS IN CHILDHOOD.—Sanger recently contributed an article on hysteria and nervousness in childhood to the *Berliner Klin. Wochenschrift*, which, being translated and abstracted by the Berlin correspondent of the *Medical Press and Circular*, we take pleasure in here reproducing:

As regarding the frequency of these diseases he remarks that among 39,759 cases of disease of the eyes in the General Hospital, Hamburg, 1029 children suffered from asthenopia. It could be shown in these cases that the disturbance of vision was part of a general nervous disturbance. He divides the cases into four groups:

1. The hemasthenic. These were mostly anemic children, easily excited, readily crying and easily tired; they com-

plained of angioneurotic troubles, palpitation and giddiness. Occasionally they suffered from true phobias.

2. Among the hysterical group, they were mostly intelligent children, who gave an impression of precocity. Child hysteria is generally monosymptomatic, but by careful examination other points could be discovered (anomalies of attitude, hysterical scoliosis, torticollis, hysterical cough, tremor, etc.)

3. Mixed forms of hysteria and neurasthenia. Along with nervous asthenopia there was limitation of the field of vision, analgesic or hyperalgesic zones on the body, absence of pharyngeal and corneal reflexes, and sometimes illusion of vision and hearing—such children were generally indolent and physically dull.

4. Hereditary neuropathies, which were met with more frequently in private practice.

As regarded treatment, psychical influence and electrical treatment were of importance.

He considers overdriving in school to be the provocative agent in these cases. Overstudy and exhaustion sometimes lead on to a fatal issue; of 289 suicides in Prussia 179 were of children in the lower schools. This fact demanded greater watchfulness on the part of the school physician than had hitherto been bestowed.—*Memphis Medical Monthly*.

\* \* \*

TO ABORT A COLD.—Max Nassauer asserts that an incipient cold in the head can be checked every time if the nose is thoroughly rinsed out with a weak solution of potassium permanganate, which seems to have a specific action upon the germs causing the trouble. He claims that the public will have a higher respect for the profession when it is proved that colds can be successfully aborted by following the physician's directions. He checks colds in the first hour or so, and thus escapes all the catarrhal and bronchial annoyance that follows in their train. He has a strong solution of potassium permanganate on hand: about what can be taken up on the tip of a small knife, to half a liter water. A few drops of this strong solution are added to warm water until it is colored a pale pink. After blowing the nose vigorously, both nostrils are rinsed out well with this weak solution, allowing the fluid to run out through the other nostril and through the mouth. Each nos-

tril is then wiped out with cotton on the finger to mechanically remove all remaining germs. A small dry plug of cotton is then pushed well up into each nostril and the nostrils filled with the weak solution, with the head held back, allowing the cotton to soak it up. The cotton is left undisturbed for about an hour, for the warmth and moisture to produce their effects, when the plugs are expelled by blowing the nose. Even an established cold is favorably influenced by this treatment, but is most effective when the sneezing, tickling and increased secretions announce the advent of the cold, which he considers a highly contagious infection.—*Klin. Therap. Woch.*, January.

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ALCOHOL FOR DRESSING THE UMBILIC WOUND.—Budberg recommends alcohol for this purpose, as he has found it extremely satisfactory in two hundred cases, rapidly drying up the cord without inflammation or discomfort. He prefers absolute alcohol for fatty cords, diluted for others. After the first bath he advises not to bathe the infant again until the cord has dropped off.—*Presse Med.*, January 11.

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THE PROPER WAY TO TEACH.—The *Philadelphia Medical Journal* for December 24th says:

"We have seen much of several schools and we are glad to say that in a few the secret of teaching has been learned. We recently accompanied one of these modern teachers as he went through his wards with his class. He gave no didactic lectures. He held recitations on the diseases that were not likely to be seen in the wards. Two hours daily he was in the hospital with his students and talked to them and showed them how to examine and what to look for, and they examined for themselves and took daily notes of the cases and at the post-mortem table saw what really was. He has learned the great lesson that the function of a teacher is to teach method, teach how to learn, and to give opportunity to learn, and not merely from the professional chair say with the infallibility of a lay pope, This is so because I say it, and forget it at your peril, and never mind why it is so, and do not try to use your own eyes and ears and hands to find it verily it is true, but accept my

authority. The secret of instruction is to teach methods, not results; to teach by demonstration, not by dictum."

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A NEW METHOD OF STAINING MALARIAL PARASITES.—(By Drs. Fitcher and Lazear).—It is quickly and servicial for office practice. The blood specimens are made in the usual way described by Ehrlich, making thin films on cover-slips, and are then fixed on a 1 per cent solution of formalin in 90 per cent alcohol. After immersion in this solution for only one minute the desired stain can be immediately used without washing off the excess of fixing agent. As a staining agent a saturated solution of thionin in 50 per cent alcohol is used, of which 20 c. c. are added to 100 c. c. of 2 per cent carbolic acid solution, and this mixture is kept in stock for use as required. It is better to keep it for some time before staining specimens, as it improves with age. The ordinary smear preparation is made fixed in the formalin solution for one minute, and without washing off the excess of solution, stained with thionin for from ten to fifteen seconds. Ten seconds generally gives the most satisfactory results. The excess stain is washed off and the specimen, mounted in balsam, is ready to be examined. The malarial parasites come out distinctly with this stain, and retain the color much better than when stained with methylene blue. The thionin stain has also been used to bring out the flagellated processes in the estivoautumnal infections, and some good specimens have been obtained.—Proceedings Johns Hopkins Medical Society.

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A SURE TEST OF DEATH.—W. S. Hedley writes *The Lancet* that what seems to be an infallible means of distinguishing real from apparent death has been quite generally over-looked. Electromuscular contractility disappears in all the muscles within a few hours after death; generally ninety minutes to three hours, according to Rosenthal. Therefore, if electromuscular contractility be present in any muscle it means life, or death only a few hours before. It is clear that no interment or post-mortem examination ought to take place so long as there is any flicker of electric excitability. In all cases, this test ought to be applied by one who is accustomed to handle electric currents for purposes of diagnosis.—*Modern Medical Science*.



## Medical News and Miscellany.

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According to the *Virginia Medical Semi-Monthly*, epidemic cerebro spinal meningitis is prevailing to an alarming extent in Morgantown, Ky. Old and young are dying rapidly and on Feb 7 there were not coffins enough in the town to bury the dead. In spite of desperate work on the part of the physicians few are left to look after the sick or bury the dead. It is to be hoped that the reports are exaggerated and that improvement will ere this have shown itself in the afflicted little community.

Dr. Chas. A. Catchings, of Woodville, is taking a special course in Chicago as a pupil of Prof. Senn. The doctor is to be congratulated on his good fortune in being a friend of Prof. Senn's for an association with this distinguished teacher is a liberal education within itself.

Dr. Geo. H. Simmons, of Lincoln, Nebraska, succeeds the lamented Hamilton as editor of the *Journal of the American Medical Association*. Dr. Simmons has been well and favorably known as the editor of the *Western Medical Review* and so brings to the *Journal* additional and time tempered vigor. May he continue the paper on its upward and onward journey. Our best wishes cordially extended.

MAL-NUTRITION.—“I am sure the imperial granum food was an efficient agent in restoring the health of a baby boy recently under my care. He was suffering from mal-nutrition with a most persistent diarrhoea. Many foods were tried and discarded, and I was beginning to lose heart, when I happened to think of the imperial granum. Its use proved it to be very easily assimilated, and I think it saved the baby's life.”

SANMETTO IN ENURESIS DIURNA ET NOCTURNA.—Some years ago my attention was called to Sanmetto as a remedy for troubles of the genito urinary organs, particularly in men past middle life, and I have had some very gratifying successes with its use. Recently I was called upon to prescribe for two boys, eight and ten years of age respectively. Everything had been

tried, including whipping, to break up the habit of wetting the bed at night, and one of them also his clothing in the day time. It occurred to me that Sanmetto would be worth trying, and to the delight of every one concerned, it has been perfectly successful; and now for the past six months and twelve months respectively, these boys have been entirely cured of this unfortunate habit. Undoubtedly the trouble was due to irritability of the prostate and mucous membrane of the bladder; hence the prompt and permanent relief afforded by Sanmetto. I have written these few lines hastily, calling the attention of the profession to these cases, with the hope that others will try the same remedy for the same habit.—James A. Stewart, M. D., Baltimore, Md.

Case I.—M. S., 52 years of age, male, was some years afflicted with an obstinate form of erythema, probably of a specific origin, which heretofore had resisted the usual constitutional and local treatments. The itching of the eruption was intolerable, the anaemia very pronounced—the whole constitution run down. Six weeks medication with Iodia, supplimented by extract of malt and codliver oil, brought the case under control. I attribute the good effect of Iodia in this, as in other cases, not so much to its mineral ingredients (potass, iodide and ferri phosphate) as to their combination with the fresh principle of vegetable alteratives. I, for my part, believe that only the extracts of the green or fresh plants are reliable for therapeutic effects, the common fluid extracts of the dried plants having proven mostly inert in my hands.

Case II.—R. W., 38, female; presented glandular enlargements complicated with functional disorders (dysmenorrhœa). The persistent administration of Iodia brought marked improvement and patient is on a fair way to recovery.

Case III.—J. P., male, age 60; blood-poisoning with chemicals used for dyeing, manifesting itself in a rupia-like eruption and general malaise. Iodia promptly eliminated the morbid matter.—A. Ziegler, M. D., Allegheney, Pa.

BETTER STILL.—The influenza has been quite prevalent in a number of cities during the past month. In Richmond, there have been many cases, though no deaths distinctly attributed to it. It is affecting mostly those who have had the disease al-

most annually during the past few years. Although the attacks this year were relatively mild, they are severe enough to keep business men away from their places of business. Phenacetin, or better still, antikamnia, with salol or quinia, and a little powdered digitalis added, has proved a satisfactory plan of treatment, presupposing, of course, that the bowels are kept open, the secretions of internal organs are attended to, and that the patient is kept in-doors, especially at night or in bad weather.—*The Virginia Medical Semi-Monthly*.

ONE OF THE OLDEST ANTISEPTICS, BUT ONE OF THE BEST.—There are thousands of physicians, yes, tens of thousands we have no doubt, who can say with "Doctor," in "An Interview," "Why, I absolutely depend upon Listerine in most of my throat work, and find it of inestimable value in my typhoid cases (as many a poor soldier boy can testify), and there are a number of purposes I put it to in the sick room, where nothing can take its place, notably, as a douche, mouth-wash, and in sponging my fever patients. Furthermore, I always deem it my duty to see that my patients get exactly what I order for them, therefore, I always order an original package, thus avoiding all substitutes. That is just where my views upon the professional attitude and sound business policy consolidate into one joint effort for the patient's benefit, and incidentally, my own."

Like every other good thing, Listerine has been counterfeited as many a physician has found to his regret, none of the "just as good and cheaper" preparations approaching it for trustworthy antiseptic service.—*Mass. Medical Journal*.

# SANATORIUM

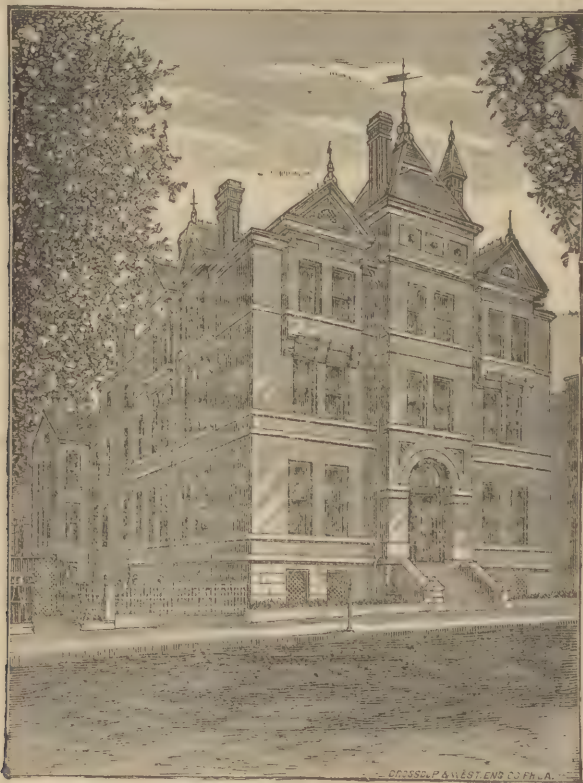
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For further information DR. MAURY can be addressed at the Sanatorium.



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### Original Articles.

#### **A New Method of Diagnosis for Yellow Fever.**

By JOHN C. MAC KOWEN, M. D., NEW ORLEANS, LA.

When Sanarelli discovered the bacillus of yellow fever, the first great stride was made towards a rational method of combating our dreaded disease.

Another difficult problem over which scientists have racked their brains for centuries was a sure and unfailing method of diagnosis, which would show within twenty-four hours, or a shorter time, that a patient was stricken with yellow fever and no other disease. There is a complex accumulation of symptoms which distinguish yellow fever completely from other diseases, but quite often three to six days must elapse before this complex accumulation shows itself clearly enough to remove all doubt. During this time individuals having diseases resembling yellow fever are considered suspicious cases for several days, until these suspicions are destroyed or confirmed by other symptoms or physicians in the absence of an epidemic of yellow fever may exclude this disease for several days, and, as in private practice, physicians and patients are very chary about having a house isolated and placarded, unless a sure diagnosis, which can only come from days of observation, has been made, the disease spreads on this account with great rapidity. In hospitals all suspicious cases must be put together during the first days of

their existence, and in this way the non-infected become infected, and, in turn, infect others. No disease is so communicable as yellow fever and the most common way of communicating it is the impossibility of diagnosing it quickly by some sure, chemical test so as to prevent the well, suspicious, or infected cases from coming in contact with the persons, clothes, furniture or houses of the infected. A certain chemical method of diagnosis would show the presence of yellow fever in places not suspected of being infected or would show its absence in places suspected.

Medical scientists, on this account, have sought a sure means of diagnosis of yellow fever with more avidity than for any other known disease.

Some time ago Dr. Widal discovered a method of diagnosis for typhoid fever founded on the fact that blood infected with typhoid bacilli formed clumps when subjected to a certain chemical treatment and this test is called the agglutinative. Doctors Archinard and Woodson applied Dr. Widal's test to yellow fever and claimed in an article published in the *New Orleans Medical and Surgical Journal* of February, 1898, that blood containing Sanarelli's bacilli would also clump together under a certain treatment.

Archinard's and Woodson's test has been tried by pathologists and especially by Dr. Pothier as pathologist of the Isolation Yellow Fever Hospital, of New Orleans, during the epidemic of 1897. Pothier tried it on twelve cases of yellow fever and not a single case gave the clumped blood claimed by the authors of this test to take place in eighty-two per cent. of yellow fever cases.

In the pathological department of the Charity Hospital during the epidemic of 1898 this test was tried on forty-one cases of yellow fever and only one case gave the clumped blood claimed by the Archinards and Woodson as characteristic of their test adapted from Widal.

Since more than 98 per cent. of the yellow fever cases subjected at the Isolation and Charity Hospitals to the above test failed to produce agglutination, the Archinards-Woodson test cannot be considered trustworthy, or of any practical value in the diagnosis of yellow fever.

The same may be said of the diagnosis from the presence of albumen in urine, which neither proves the presence of yellow fever nor does its absence exclude yellow fever. Many other diseases have albumen in urine also; therefore its presence or

absence does not furnish a differential diagnosis. Unfortunately for our gulf states, for the West Indies, for Central and South America there is no such differential diagnosis, and their future depends on it, for with such a diagnosis an epidemic can be prevented by promptly isolating every case and an epidemic can be stamped out by prompt isolation and disinfection.

During the summer months of 1898 I published a series of articles on a new disease discovered by myself, called Aromatic Intoxication, in the *New Orleans Medical and Surgical Journal* in which I showed that the human body always generates certain poisons or toxins which are excreted normally in urine by chemical composition with sulphates. Certain morbid conditions, however, cause the absorption or retention of these aromatic toxins in the blood to such an extent as to produce grave nervous and other pathological symptoms causing severe sickness and even death. These toxins are skatol, indol, phenol and cresol. They possess strong odors which are given out by the skin and especially by the armpits, saliva, sperm and inguinal or perineal regions of those poisoned with these toxins. At the same time the skin is discolored by the pigment, stercobilin, urobilin or hydrobilirubin, which three are chemically the same thing, although urobilin can be changed by certain circumstances, not well understood, to show by spectral analysis certain lines which the other two do not show. The urobilin found in normal urine does not show these spectroscopic lines.

This aromatic intoxication enters very largely into yellow fever, due to anatomical and physiological ravages by the intestines, where the aromatic toxins are generated by the action of the colon bacillus and the *protens vulgaris* on the proteids undergoing digestion in the lower part of the ileum and in the colon, where the ravages caused by yellow fever bacillus allow an abnormal absorption of these toxins and of stercobilin, the pigment of faecal matter, into the blood stream. Indol, one of these aromatic toxins, is secreted by the kidneys in the shape of indoxyl-potassium sulphate, and, carried into the bladder with the urine, is easily recognized in excreted urine by a chemical test, which shows the amount of aromatic intoxication going on in the body. Stercobilin, after passing from the intestine into the blood stream and through the kidneys into urine, is called urobilin. It is the main coloring matter of urine as it was the main coloring matter of faeces.

From previous experiments I know that yellow fever patients possessed in their urine three pigments: 1st bile from ravages in their livers; 2nd indican from indoxyl-potassium-sulphate derived from the aromatic toxin, indol; 3rd, urobilin. I reasoned that the presence and combination of these pigments in the urine of yellow fever patients might differ in quantity from the pigments caused by any other disease, resembling yellow fever, in the urine of patients, or that one or more of these pigments might fail completely. The problem I set before me to solve was to find some chemical substance or substances which would give a reaction, showing all three of these pigments in the urine of yellow fever patients and then, by a process of exclusion of the colors produced by these same chemical substances on the urines of patients suffering from diseases, which in their initial or other stages might be mistaken for yellow fever on account of chemical resemblances, I hoped to find a reaction which would designate yellow fever every time it was used and exclude every other disease by the colors or combination of colors produced by the action of chemicals on the three pigments in the urine of yellow fever patients.

I fitted myself for this work by making a special study of pigments in the eyes, on the faces, on the lineae albae and on the areolae mammarum of whites, blacks, mulattresses, quadroons, octaroons, chinese and indians in the hospitals of New Orleans for several months. I found much more urobilin here in our sub-tropical climate than in more temperate zones. There is also quite an increase of urobilin caused by pneumonia, typhoid fever and by haemorrhagic infarctions, I found. This agrees with what Purdy says on pages 45, 46 and 48 in his *Urine-analysis*—London, 1895.

When yellow fever was declared epidemic in New Orleans by the establishment of quarantine, I was allowed to select such patients in the yellow fever wards of the Charity Hospital as suited the various experiments I wished to carry out on their urines. I owe my thanks to Dr. Bloom for this kindness and other thanks to Dr. Pothier for placing the laboratory of the Charity Hospital pathological department at my service.

After several months work with yellow fever patients and with dogs, and after numerous experiments on the urine of cases of pneumonia, of typhoid, of malaria and of all combinations of other diseases with malaria, whose symptoms might resemble



yellow fever in any way, I found by this process of exclusion the following reaction, which gave a successful diagnosis, with all the men and dogs tried by me, of yellow fever and of no other disease:

Pour into a test tube four and a half cubic centimetres (or one fluid drachm) of urine, add a cubic centimetre and a half (or a fluid scruple) of sulphuric acid, shake well, then, after cooling the mixture by putting the lower part of tube in cool water, add a cubic centimetre and a half (or one fluid scruple) of chloroform to the mixture in the tube, shake thoroughly, then put the tube in a standing position and allow the chloroform to settle to the bottom. The chloroform becomes a sediment at the bottom of the tube and assumes within twenty-four hours an opaque, dirty, yellowish white or an opaque, dirty, yellowish gray color. Above the chloroform rests a brownish liquid and between liquid and chloroform sediment, a pink or reddish streak forms. Sometimes the part of this interlying streak near the liquid is bluish and that near the chloroform is pink or reddish, but the blue turns gradually to pink or red after some days; usually this streak is only pink or reddish. By keeping this reaction in the test tube for some days or weeks all these colors become more pronounced or darker. After a little practice with this reaction any one can see from the color of the sediment that yellow fever is present, or not, within an hour and as the eye becomes more accustomed to it a few minutes suffice for a diagnosis.

To find out the composition of this opaque, dirty, yellowish white or grey, I made the following experiments. I tried the effect of sulphuric acid and chloroform separately on each one of the pigments, urobilin and bile, and on indoxyl potassium sulphate:

I. I obtained urobilin by taking pure, normal, human bile with the normal color of bilirubin and to this I added eighty per cent. of distilled water, thus gaining a solution containing twenty per cent. of bile, and, after dividing the solution into two equal parts, I took one part, added ammonia to it and then exposed it to the air until the bilirubin color was changed into biliverdin. An amalgam of sodium was formed by heating a little pure mercury in a test tube, then a pellet of sodium was thrown into it, causing a combustion with great force. The bilirubin solution was mixed with the biliverdin and the mixture was poured into a test tube holding the sodium amalgam which

united with the mixture and their union gave urobilin, or hydrobilirubin, or stercobilin for I use these words as synonyms. On [treating this solution of urobilin with sulphuric acid and chloroform, as described already, a bright yellowish, whitish color was produced.

II. On treating a solution of twenty per cent. normal human bile and eighty per cent distilled water with sulphuric acid and chloroform as described above, a green or slightly bluish green is produced, showing bilirubin.

III. The effect of sulphuric acid and chloroform on the indoxyl potassium sulphate in urine is to produce a pink or red or blue, which nearly always changes into a pink or red by standing in the reaction tube for some time.

My reaction of sulphuric acid and chloroform produces, in the urine of yellow fever patients, three colors; 1st a bright yellowish white; 2nd a green; and 3rd a pink, red or blue, which, for all practical purposes, I shall call a reddish color, as the blue nearly always changes to red, although not always and this must be remembered.

The large amount of urobilin in the urine of yellow fever patients produces the yellowish white sediment and this is rendered opaque and of a dirty hue, by the presence of a small amount, usually during the first few days, of bile and a larger amount of indican which the chloroform absorbs as it is shaken up. When the chloroform has become a sediment then a reddish indican line forms in its superior part gradually as the red is deposited by settling from the superposed liquid. As the bile increases in the blood stream and urine, then its bluish green tinges the red more or less and may even replace it.

We know that Sanarelli's bacillus attacks with preference the liver, the stomach, the intestines and the kidneys. If the stomach be the main point of attack, then black vomit is produced, if the kidneys, then suppression of urine occurs, if the intestines, haemorrhage occurs and sometimes a bloody flux results, though quite often, on account of the constipation common to yellow fever, this intestinal haemorrhage remains in the intestine and becomes a species of haemorrhagic infarction, producing not only an excess of urobilin, but also an excess of aromatic toxins in the blood and urine, which are readily absorbed into the blood stream by the intestinal mucous membrane, either ecchymotic or broken, by the irruption of blood, freed from the

capillaries by the destructive action of Sanarelli's bacillus. In this case, where the intestine is the main point of attack, then the opaque, dirty, yellowish white, or grey deposit of chloroform becomes gradually a dirty red from the indican of the aromatic toxin, indol, and this red becomes clearer as convalescence sets in. When the patient is completely re-established the urine becomes clear and limpid with my reaction.

In case the liver has suffered more ravages from Sanarelli's bacillus than the intestines, then the opaque, dirty, yellowish white, or grey, takes on gradually during convalescence a bluish green color until the reaction shows a clear and limpid urine without any color at all when patient is completely well.

Where liver and intestines are equally ravaged by Sanarelli's bacillus, streaks of red and bluish-green are found mixed in the same chloroform sediment, after the dirty, opaque, yellowish-white or grey has disappeared with convalescence, or the blue-green may predominate for one day or several days because the liver heals more slowly than the intestines and allows an excess of bile over aromatic toxins or the red may predominate over the bluish-green for one day or several days caused by a slower process of healing in the intestines and thus causing an excess of aromatic toxins over the bile, and then bile and aromatic toxins alternate with one another until the limpidity of complete convalescence ensues. In case the intestines are very much more ravaged than liver then red sediment occurs during the whole course of convalescence, and in case the liver is ravaged very much more than the intestines then a bluish-green sediment replaces the opaque, dirty, yellowish-white or grey during the whole course of convalescence.

When the yellow fever patient gets worse the opaque, dirty, yellowish-white or grey becomes more opaque, more dirty and more yellow until death ensues.

Where there is partial suppression of urine the red streak of indican becomes stronger as the lethargic condition from the absorption of aromatic toxins increases, the bluish-green of bile pigment disappears and the sediment becomes more opaque, more dirty and more yellowish-white or grey.

I was able to create synthetically the peculiar colors of the yellow fever reaction by mixing the pigments produced from urobilin alone, from bile alone and from nidoxyl potassium sulphate alone by my reaction, which for brevity I shall call mine

as I am the first to apply this reaction to detect yellow fever through urine.

Since urobilin is a comparatively unknown pigment to most practitioners I give Merck's description: "Urobilin (hydro-bilirubin) coloring principle of urine c32, h40, n4, o7, brownish-red, resinous masses, soluble in alcohol, ether, chloroform and alkalis."

Purdy in his *Urinanalysis*, London, 1893, page 46 says: "According to the observations of Lawson the excretion of urinary pigment is much greater in tropical than in temperate climates. Thus assuming the normal unit to be 4.8 in the average adult in temperate climates, he found in the tropics that it rose to 12 or 14. In pneumonia it has been observed to rise to 16 and 20; in acute rheumatism from 30 to 32 at the height of the disease; in typhoid fever from 80 to 100 and in a man who had inhaled arsenated hydrogen from 600 to 800."

On page 48 Purdy says: "Urobilin exists in normal urine in small amount, the quantity being much increased in acute fevers—four to five or more times."

Since yellow fever is an acute fever it causes four to five times more of urobilin than is normal.

Purdy continues on page 48 to say: "Typhoid and septic fevers, which cause rapid destruction of the blood corpuscles, markedly increase the excretion of urobilin."

Dr. Pothier in his "Summary of Work Done at Isolation Hospital in 1897," calls our attention on page 7 to the "decided loss of hemoglobin during yellow fever and a slow return to the normal in the convalescents;" also on page 8 Pothier says: "On opening the bodies one of the first things that attracted attention was the marked fluidity of the blood contained in the heart and large vessels and the congestion of the tissues." From these observations of such a sure and sharp observer as Dr. Pothier we can judge how great must be the destruction of the blood corpuscles during yellow fever and the consequent excretion of urobilin.

Purdy continues on page 48 to say: "It is an interesting and highly important clinical fact that increased excretion of urobilin has been observed in intra-cranial haemorrhages, haemorrhagic infarctions, retro-uterine haematocoele and extra-uterine pregnancy."

We have then an enormous excretion of urobilin in yellow



fever from three causes: 1, acute fever; 2d, rapid destruction of the blood corpuscles, and 3d, haemorrhagic infarctions in the intestinal canal, held there by the constipation common to yellow fever. Probably yellow fever furnishes more urobilin than any other fever.

Purdy says on page 48: "There is diminished excretion of urobilin in convalescence from acute diseases."

From these extracts we can understand why there should be such an excess of urobilin in yellow fever so long as the acute fever stage lasts and that it should diminish when convalescence sets in and the bile and indican pigments supersede urobilin and vie for predominancy in the urine of yellow fever patients during convalescence.

To point out the difference between my reaction on yellow fever urine and that of pneumonia I take the typical case of A. E. Eberhardt, bed 344, Charity Hospital, admitted November 26, 1898; on November 28 temperature arose from 100.3 to 100.6, on 29th same temperature, on 30th temperature went down and kept on diminishing until 6th December it reached the normal.

On 29th my reaction on his urine gave a transparent, bright yellowish, whitish color in chloroform sediment and in superposed liquid; there was no streak of indican or of any other color between sediment and liquid. This reaction continued until the 6th of December, when a slight indican red showed itself as in normal urine; convalescence had set in and Eberhardt was discharged shortly after. There was a dirty, yellow, sallow skin from urobilin pigment and eyes were slightly injected, he had a chill at the onset of fever with pains in the back. On the 28th albumen was present in urine, also the same on the 29th. Widal's reaction negative on 29th; on 30th plasmodium of malaria absent. Only one pigment was thrown into blood and urine by the acute fever and by a species of haemorrhagic infarction in the lungs and that pigment was urobilin.

I cite as a typical case of typhoid malaria that of Benjamin Senteune, bed 357, Charity Hospital, a young man from the north who had been working in our Louisiana rice fields. His face was slightly yellowed, the greenish-yellow of malaria, admitted 22d of November, discharged cured after five weeks. My clinical reaction showed the blue of indican in chloroform sediment and in superposed liquid of his urine without any line of color between until December 13, when the pink of indican took

the place of blue and this pink became slighter as convalescence progressed. The blue of indican often changed into pink or red after leaving the reaction in test tube for some days.

Chill occurred at beginning of attack with pains in head and back and constipation. On 23d of November Widal's reaction negative, on 25th of November plasmodium of malaria present, on 27th Widal's reaction negative, on 28th plasmodium malaria present, on December 1st plasmodium malaria negative, on December 3d Widal's reaction negative, on 4th plasmodium negative, on 8th Widal's reaction positive, on 9th plasmodium negative.

On 22d of November temperature was 104.5 and became normal on December 13th, with occasional augmentations for two weeks more.

Two pigments were present in the urine of Senteune, a small amount of urobilin because fever dropped from 104.5 on the 22d to 101 on the 23d and to 98.5 on the 24th; there was no continued acute fever with high temperature to produce much urobilin but the intestinal ulcerations were large enough to permit a large absorption of aromatic toxins and the indican predominated the urobilin completely; there was sufficient urobilin to give a very bright blue or pink instead of a duller indican red.

A typical case of malaria was that of Charles Anderson, bed 296, Charity Hospital, a very blonde Swede, very yellow, admitted 22d of November, case watched until 13th of December, plasmodium malaria present from beginning to end, paroxysms of fever occurred on 23d of November, 101 degs.; on 3d of December, 101.3 degs.; on 11th of December, 100 degs.

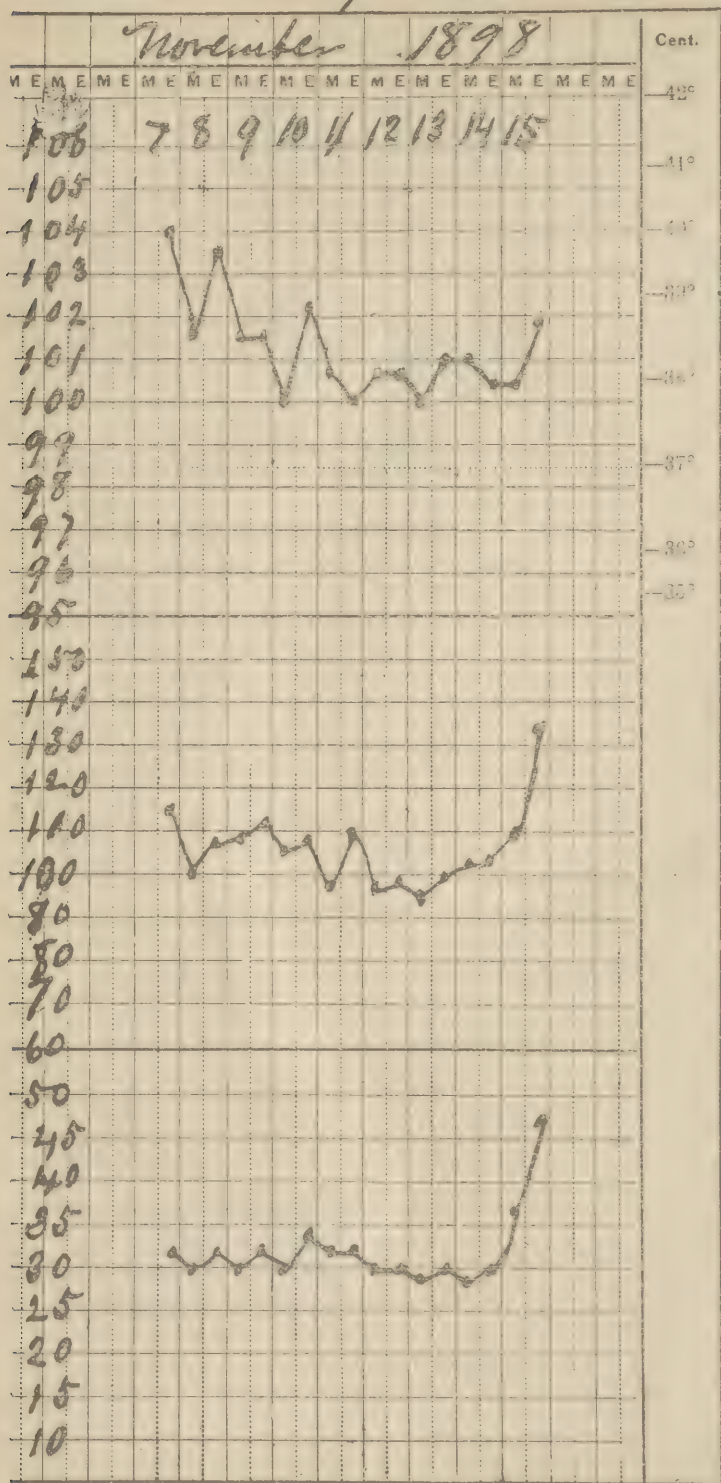
My reaction gave dark reddish-yellow with indican red line, then lighter reddish-yellow with red indican line which then became a pinkish-yellow without indican line or a dark reddish-brown.

None of the cases already cited were ever put into yellow fever wards although they were suspected at times. The reaction for yellow fever was so different from their reactions that there was no mistaking them for yellow fever.

It would be a waste of time to give the reactions of cases of acute rheumatism and of those who had inhaled arsenated hydrogen, quoted by Purdy from Lawson as producing an excess of urobilin, as these diseases can not be mistaken clinically for yellow fever.



1 Dan. Foley - Bed 315 Char. Hosp.



Temperature — Pulse — Respiration



All the cases I shall cite now were placed in yellow fever wards as the clinical diagnosis was that of yellow fever in each case.

C. J. Hoverer, bed 303, Charity Hospital, admitted November 2d, attack commenced at 2 a. m. October 31st with heavy pain in the back, headache, face flushed, severe chill and fever; November 3d face a sallow yellow and eyes slightly yellow, temperature 104 degs.; November 4th temperature same, November 5th died. All my reactions on his urine gave the transparent, bright yellowish, whitish color in chloroform sediment and in superposed liquid without any streak of indican red or of any other color between sediment and liquid. This is the reaction of urobilin pure and simple. Autopsy of Hoverer showed that he died of pneumonia without any yellow fever. His reaction was the same as that of Eberhardt. Body did not become golden yellow or show the purple ecchymotic spots after death characteristic of yellow fever. Albumen in urine every day.

Daniel Foley, bed 315, Charity Hospital, admitted 7th of November, died on 16th of November, "taken sick November 2d, 1898, with headache, slight vomiting, fever;" on admission "skin had bronze color almost approaching yellow" (I use the expressions written on the back of the chart attached to the foot of his bed), "gums spongy, eyes normal, bowels open." (See chart.)

On the 7th of November plasmodium malaria present, on the 8th bile, on 9th bile, on 11th albumen and blood, on 12th bile, on 14th albumen, Widal's reaction negative; on 15th albumen, on 16th died, vomiting black vomit.

It would be difficult to find a clinical history of yellow fever more typical than this of Foley. There were albumen and bile in urine, headache, vomiting and fever, golden yellow color of skin, spongy gums, Widal's reaction negative, black vomit and a certain want of correlation between temperature, pulse and respiration—all characteristic of yellow fever. Normal color of eyes and open bowels were not characteristic, but these exceptions occur frequently.

My reaction of Foley's urine during the nine days of his stay in the hospital gave only the red indican sediment and superposed liquid of a heavy aromatic intoxication without any dividing streak of a different color.

As this clinically typical case of yellow fever did not give my yellow fever reaction and I could see no reason why it should

not, I thought that my months of hard work had been thrown away, as very often occurs during original researches to those who follow up a promising vein of valuable scientific metal only to find it ending in worthless dirt. This was particularly disheartening as on November 16th, the date of Foley's death, the cold weather had set in and the epidemic of yellow fever was fast approaching its end so that I would have no opportunity to find out why my reaction had failed in his case, because I would have no more yellow fever patients to work with and orders had been issued by Dr. Souchon, the president of the state board of health, to the Charity Hospital officials to hold no autopsies on the corpses of yellow fever cases for fear of spreading the disease through the hospital and city, and such corpses were buried immediately after death. This reason, which stifled all scientific inquiry, was given out, but the real reason was that Dr. Souchon wanted no tangible proofs of the presence of Sanarelli's bacillus in New Orleans to be furnished officially by the pathological department of the Charity Hospital because Souchon had tried to suppress the truth about its existence in New Orleans by denying its presence and by many other subterfuges which caused the spread of yellow fever over the states of Louisiana and Mississippi, carrying great sickness, suffering and death. Dr. Bloom was compelled to follow the instructions given him by the president of the state board as the Charity Hospital is a state institution and there would not be an autopsy, as Foley's case was typical of yellow fever except in two things, open bowels and no injection of eyes. Another exception came after death by the absence of pink or purple ecchymotic spots on the body. These exceptions created some doubts in my mind but the evidence was overwhelming, from a clinical standpoint, in favor of yellow fever and against my reaction.

I remember how I followed the corpse to the dead house to see if any purple spots would show themselves and finding none I went up to the pathological department and looked over my scores and scores of test tubes containing my reactions, very much cast down, for I was aching with pains and suffering from nervous depression. Although I had gone through a severe attack of yellow fever in 1853 I had been poisoned every day for months by spending one or two hours in the wards containing the worst cases of yellow fever in the hospital, for the yellow fever bacillus always gave me within a few minutes after entering the wards

an intense pain in the back, commencing at the nape of the neck and extending downwards. This pain increased during my two or three hours laboratory work immediately after leaving the wards and until I could get into the fresh air and sunlight and disinfect myself by getting on a ferry boat and crossing the Mississippi repeatedly until the pain ceased or was alleviated. The strong odors of the aromatic toxins, skatol, indol and ammonium valerianate emanating from the skins of yellow fever patients and the odors from the dead house immediately under the laboratory and of the laboratory itself were particularly nauseating to me as I was still weak from a long and dangerous attack of aromatic intoxication and I left the laboratory every day full of pains, nauseated and depressed nervously until the river air had refreshed me.

This is the common lot of workers among dangerous and nauseating poisons like yellow fever and I accepted it, for I was buoyed up by the hope of giving to humanity and science a discovery which would save the lives of hundreds of thousands. This hope was destroyed by Foley's clinical symptoms which caused the gravest doubts to myself about the unfailing efficacy of my reaction and by the ill-advised action of the president of the state board of health in forbidding autopsies which might confer the greatest boon to humanity and science.

My only hope was to go to Havana or to Rio Janeiro and continue my labors there, but I commenced to feel how sick and nervously depressed I had become by my arduous labors and I needed a long rest now that I was not buoyed up by hope. Havana and Rio Janeiro loomed up as very far away and impossible to reach through the mists of pain, weakness and nervous depression which prevented my going there.

The chief of laboratory, Dr. Pothier, gave orders at this moment to his assistants to get ready to make the autopsy of Daniel Foley ordered by Dr. Bloom as some doubts existed about his case being yellow fever, and as I heard him give these orders my hopes rose again, my pains, weakness and depression were forgotten and I took my note book and followed them to the autopsy room.

The autopsy showed that Daniel Foley had died of typhoid-malaria with perforation of intestine, and one of the worst cases of peritonitis I have ever seen. There was no sign of yellow fever in any of his organs and the very grave complication of



diseases affecting him would explain all the symptoms of Foley's case.

Needless to say this autopsy gave to my companions in the laboratory and to myself greater confidence than ever in my reaction.

Another extremely interesting case was that of Pietro Molle, bed 314, Charity Hospital, admitted November 9th, 1898, extremely yellow, with pain and swelling over the liver region, diagnosis was obstructive jaundice and he was put into a non-infected ward. The interne had orders to keep a strict watch on Molle for any symptom of yellow fever and as his suspicions were aroused on the night of November 9th Molle was transferred to a yellow fever ward. My reaction on the 10th showed only bile to a very large amount but no trace of yellow fever; on the 11th there was a tinge of red indican in the bile reaction; on the 12th the indican red was much stronger and there was a sudden rise of temperature from 98 degs. on the 11th of November to 102 degs. on the 12th, increased pulse from 80 to 120 and increased respirations from 20 to 30 with black vomit. I showed my reactions to my companions of the laboratory, telling them that Pietro Molle had been put into a yellow fever ward without any yellow fever, that his disease had been uncomplicated, obstructive jaundice, as the blue-green reaction showed only the presence of bile but that Molle had become infected in the ward and now had the yellow fever, for lesions in the intestinal canal made by the bacilli of Sanarelli allowed the absorption of aromatic toxins, generated by the action of the colon bacillus on proteids in the intestinal canal and the red indican showed the presence of an excess of aromatic toxins in the blood. I predicted Molle's death, founding my assertion on the fact that he had been weakened by obstructive jaundice to such an extent that he would not be able to resist the rapid absorption of aromatic toxins going on and that in a day or two he would show the regular yellow fever reaction in his urine and would succumb shortly thereafter.

This prognosis, founded on my reaction, startled my listeners by its boldness, and I added that since the diagnosis by all the physicians who had seen him had been that of obstructive jaundice, there would be an autopsy and we would not only see all the characteristic signs of yellow fever in the liver, kidneys, etc., but we would also be able to obtain a supply of Sanarelli's



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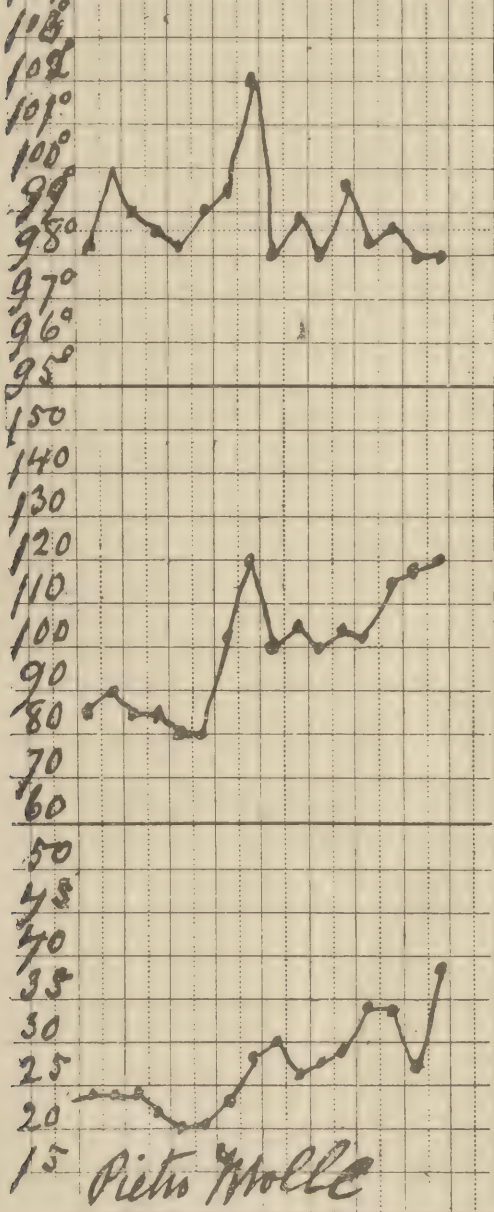
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Pietro Molle

Respiration — Pulse — Temperature

admitted 9th Nov. - died 16th Nov at 9 P. M.





bacilli to carry on all the experiments with dogs we might attempt during the winter. There was a healthy mixture of incredulity and curiosity in their faces aroused by the precise terms of my prophecy and we all looked forward to see how much truth there was in my reaction. On the 14th of November the red indican reaction was much stronger with only a slight tinge of green from bile, on the 15th there was strong red indican without any sign of green from bile, on the 16th the extremely dirty, yellow, chloroform sediment of yellow fever, with a strong red indican line between sediment and superposed liquid appeared in the morning and on the evening of the 16th at 9 o'clock Pietro Molle died, vomiting black vomit, which had occurred at intervals from the 12th to the 16th.

As the official diagnosis was obstructive jaundice an autopsy was allowed and every symptom of yellow fever was found in the organs usually affected by it, and "the fatty degeneration in the cortex of the kidneys immediately at the edge of the malpighian pyramids, forming arches around that border and radiating toward the cortex of the organ" was there. This important point in the diagnosis of yellow fever was pointed out by Dr. Pothier on page 9 of his "Summary of Pathologic and Bacteriologic Work Done at the Isolation Hospital, New Orleans, La.," in 1897, reprinted from the *Journal of the American Medical Association* of April 15th, 1898.

Reports from pathological department of Charity Hospital on Pietro Molle were as follows: On the 10th of November no plasmodium, on 11th bile, on 12th bile and albumen, on 13th no report, being Sunday; on 14th albumen and bile, on 15th albumen and bile and on 16th albumen and bile. On entering hospital Pietro Molle passed the normal quantity of urine but when yellow fever commenced urine diminished daily in quantity and on last day he passed only a few drops which stained the sheets a characteristic yellow, showing urobilin and bile.

It is very difficult to get cases at the very beginning of an attack of yellow fever in hospitals like the Charity. Common workmen will lie in bed at their lodgings for a few days or even a week before applying at the hospitals for admittance. I was fortunate enough to get two cases at the very beginning and this was due to the extreme severity of their attacks as usually occurs with strong, young men.

Robert Jones, bed 304, was one and Wm. Davis, bed 311,

was the other. Both showed the characteristic yellow fever reaction within twenty-four hours of their attacks, some days before their eyes or skin became yellow.

I explained in my work on "Aromatic Toxins" how they enter more or less into every case of yellow fever and I cite here the two characteristic cases of Salvatore Finici, bed 305, who died from aromatic intoxication and that of Gove Saulsbury, bed 312, who recovered, as examples of the lethal and of the moderate forms of the disease.

Salvatore Finici was admitted October 11th and this is a synopsis of his chart:

1898	Temperature.	Pulse.	Respiration.
October 12.....	103.5 degs.	98	26
October 18.....	99 degs.	91	33
October 24.....	98 degs.	92	32
October 26.....	97 degs.	80	33
October 27.....	98 degs.	109	34
October 28.....	96 degs.	120	38

He died October 29th, became extremely yellow October 16th, partial suppression of urine from October 20th, almost total suppression from 26th and the little urine that passed stained the sheets yellow. My reaction of his urine showed yellow fever from the first day, he had been sick for several days before admission, on the 19th of October dirty, yellow sediment of chloroform, strong red indican streak mingled with green from bile and brownish superposed liquid; on 25th dirty, yellow sediment, indican red streak stronger and no sign of bile, on 26th dirty, yellowish sediment still stronger and indican red much stronger; after the 26th no more reactions were made because no urine could be obtained.

As the indican reaction became stronger Finici became more and more stupid mentally until death, on the 29th of October. On the 19th of October Finici could understand with great difficulty what was said to him and could articulate an answer in monosyllables. This difficulty was due to a rapid increase in the absorption of aromatic toxins into normal blood stream by the intestinal canal and by a partial suppression of urine which prevented their exit. This partial suppression increased from the 19th until it became almost total during the last three days of his life. What little urine issued stained the sheets a characteristic yellow like that of Pietro Molle. Finici's perspiration under armpits and on breast and back stained his shirt yellow, a characteristic golden yellow, like that deposited on my shirt dur-



ing my sickness from a pure case of aromatic intoxication without yellow fever as described in my work on Aromatic Toxins.

The odors emanating from his skin were a mixture of ammonium valerianate and of indol-skatol. The ammonium valerianate predominated on the 19th of October and for some days after and the indol-skatol predominated during the last week of his life. Finici was a pronounced type of the evil odors which can be produced by yellow fever and a resulting aromatic intoxication. He lasted much longer than it seemed possible under the strong morbid processes going on in his body and his remarkable tenacity of life gave him the time and opportunity to generate in his intestines the indol-skatol toxins, to absorb them into his blood stream and to exhale them from his skin and from the axillary, inguinal and salivary glands. In spite of the lethargic condition of his mind and the dulled condition or paralysis of the nerves of his senses it was necessary to strap him down to his bed to prevent him from rolling out or getting up and wandering aimlessly about without knowing where he was going or what he was doing. He could not articulate a word of any kind during the last six days of his life and could give out only the short moans or cries of dumb animals. Many cases were brought to the Charity Hospital in this last speechless stage; the young had the same symptoms as Finici of dullness or paralysis of all senses but had a like irritation of the muscle nerves to such a marked extent as to require strapping down to their beds to prevent them from harming themselves by getting up or falling out of bed or falling on the floor when up; the middle aged in this stage of strong aromatic intoxication from yellow fever often had the reflex nervous symptoms of hiccoughs, usually with irritation of muscular motive nerves which found vent by restless movements of arms, legs, head, body or the movements required by the act of hiccoughing and the old lay in a lethargic, quiet state without stirring until death. I saw only one case of recovery from this stage, a middle aged man with hiccoughs who had a partial suppression of urine which became normal in quantity, most probably by the aromatic toxins destroying quickly the bacilli of Sanarelli in the kidneys, thus arresting their baneful destruction of kidney tissues in such a way as to allow the kidneys to resume their normal functions and save his life by excreting the aromatic toxins. I do not give Finici's chart of temperature, pulse and respiration because

Molle's chart, which is given on a preceding page, gives during the last three days of his life a typical picture of the want of correlation between temperature, pulse and respiration caused by an aromatic intoxication ending with death.

Another very interesting case of typical aromatic intoxication is that of Gove Saulsbury, bed 312, Charity Hospital, admitted October 10th, 1898, and discharged cured November 15th.

From accompanying chart we see that the yellow fever lasted eight days with temperature at 103 deg. on first day, rising to 104 deg. on fifth and seventh days, falling to normal on eighth day and remaining almost or quite normal until discharged on thirty-sixth day. Pulse and respirations, however, showed marked abnormal changes during the last twenty-eight days due to aromatic intoxication. Saulsbury became and remained remarkably yellow during these thirty-six days and was still quite yellow when discharged on November 15th, when his pulse, temperature and respiration had become normal.

Albumen was found in urine, as also large quantities of bile and occasionally blood. No suppression of urine partial or total ever occurred. After the 20th of October the yellow fever reaction was replaced by indican red tinged with green from bile; indican red predominated the green until the 29th of October and then green predominated red until November 1st, when red predominated the green until November 3d, then green predominated red until both green and red became less daily and his urine on the 14th of November showed no trace of either bile or indican so that Saulsbury, who felt strong enough to walk about and to leave the hospital, was discharged from the hospital on the 15th of November. During his twenty-eight days of convalescence he walked very little as walking increased his respirations or his so called "shortness of breath" and he was disposed to lie in bed quite often and for days at a time owing to "shortness of breath," nervous weakness and want of energy so characteristic of aromatic intoxication.

There remained lesions made by the bacillus of yellow fever in the intestinal canal from the large amount of indican in the urine; there were also lesions in the liver from the amount of bile in urine and lesions remained in the kidneys from the presence of blood in acid urine. Such lesions made by Sanarelli's bacilli during the attacks of fever usually heal up immediately or very shortly after the fever ceases, but in Saulsbury's case



# CLINICAL CHART OF TEMPERATURE, PULSE AND RESPIRATION.

Name—Gove Saulsbury. Date of Admission—October 10th, 1898. Diagnosis—Yellow Fever. Duration—November 15th; 36 days.







these lesions remained to serve as portals for the entrance of aromatic toxins through intestinal canal and kidneys and for the entrance of abnormal quantities of bile through lesions of the liver.

These lesions of intestinal canal, of liver, of kidneys or of stomach caused by Sanarelli's bacilli sometimes remain not only for twenty-eight days as in Saulsbury's case but for months sometimes, causing death or a life-long impairment of the functions of the organ.

I was called in as consulting physician to the case of a woman named Cook in Jackson, La., during March, 1899. She had passed through an attack of yellow fever during the summer of 1898, had recovered from that disease but the lesions of her stomach and intestines, caused by Sanarelli's bacilli, were so grave that dilatation of her stomach and other morbid processes had taken place which rendered both stomach and intestines unfit to carry on the processes of digestion properly and she died as the result of these lesions five months after having recovered from the yellow fever.

Saulsbury's recovery from the lesions of his intestinal canal, of his liver and of his kidneys was gradual but sure. There was no more fever after the eighth day but on the twenty-first and twenty-second days there was a marked increase of heart beats and the number of respirations increased until the thirty-first day when they decreased until they reached the normal on the thirty-fifth day, twenty-four hours before his discharge. Saulsbury's increased number of respirations troubled him more than anything else and any exercise increased them, so that when not lying down in bed he sat quietly on a chair and took no share in the life and conversation of the convalescents who met in the large hall outside the wards as it brought on shortness of breath for him to talk.

The aromatic toxins by poisoning and killing the bacilli of Sanarelli put an end to their destruction of soft tissues in liver, kidneys, intestines and stomach and this destruction of tissues produced irritation and inflammation which in turn produced increased temperature, increased pulse and increased respirations.

These aromatic toxins also poisoned the nerve centers of heart, but more especially poisoned the pneumo-gastric nerve controlling respirations. Rovighi found that indol and skatol produce essentially the same derangements in rabbits, namely

torpor, somnolence, widespread paresis, feeble heart action, reduction in temperature and retention of urine and faeces.

Herter found in rabbits and dogs that indol produced cardiac and respiratory depression, general prostration, marked contraction of the pupils, irregular clonic spasm and increased reflex excitability. A large quantity of indol produced death from cardiac rather than respiratory failure. A great loss of weight follows poisoning from indol or skatol.

The odors emanating from armpits of Saulsbury were by no means so strong as with Finici but they were well marked. Ammonium valerianate was mingled with the odors of indol-skatol.

My reaction for the diagnosis of yellow fever is based on the rapid generation of a very large amount of urobilin by the action of the bacilli of Sanarelli at the very beginning of an attack of yellow fever, a more rapid generation than in any other disease I know of. This large quantity of urobilin is generated more quickly than the indican or bile in urine and overbalances them to such an extent that the indican and bile at first only give a slight, dirty tinge to the urobilin sediment. Indican increases by the absorption of aromatic toxins produced by the action of the bacilli coli-communis in intestinal canal on the proteids and is then absorbed into the blood stream through the lesions of intestines or aromatic toxins are produced in the blood stream or in congested blood, possibly, when these are flooded with the colon bacilli which find their way into all parts of the human body during yellow fever, and are thus brought in contact with the proteids in the blood stream. Bile increases by the lesions in liver which prevent its normal excretion into intestines and cause its absorption into blood stream by the lymphatic canal so that bile appears in urine on fourth day in mild cases and earlier in severe cases. When bile and indican are sufficiently strong they take the place of urobilin which disappears gradually as convalescence progresses, and the red of indican or the green of bile replaces the dirty, whitish or grayish-yellow of urobilin.

How is this enormous quantity of urobilin produced in yellow fever? We see from Dr. Pothier's report of pathological and bacteriological work done at the Isolation Hospital in 1897 that "the most characteristic pathologic changes in the organs are congestion of liver, kidney and heart with steatosis, there are marked congestions, erosions and hemorrhages of the stom-

ach and intestines and the other tissues present a marked congestion with icterus." Congestion of blood is everywhere according to Pothier.

"The kidneys usually presented an acute inflammatory condition being congested, at times intensely so. In some cases infarcts were found and also interstitial hemorrhages; these hemorrhages, usually small, attained in some the size of a pigeon's egg. Although generally in the substance of the organ these hemorrhages were sometimes found in the pelvis and calices of the organs."

Dr. Pothier says of the quantity of hemoglobin, page 7 of his reprint, "Using as a control test the percentage of hemoglobin obtained from one of the physicians of the hospital, this control gave 90 per cent. hemoglobin. In recent cases of yellow fever and during the course of the disease the percentage of hemoglobin never exceeded 72 per cent. except in one case which proved fatal, where it was found as high as the control, 90 per cent.; the lowest percentage was 64 and the highest 80."

We know that urobilin is produced in blood stream, 1st, by acute fevers during which it increases four or five times; 2d, by septic fevers which cause rapid destruction of the blood corpuscles, forming hemoglobin, and hemoglobin forms urobilin excreted in urine; 3d, by internal hemorrhages of all kinds, such as hemorrhagic infarctions, and where blood comes to a stasis, as during congestions, intra-cranial hemorrhages, retro-uterine hematocoele and extra-uterine pregnancy. See Purdy's *Uranalysis*, pages 45 and 46.

Yellow fever furnishes all three of these causes of an excess of urobilin as this disease commences as an acute fever, is a septic fever and furnishes more congestions and infarctions of the organs, mucous membranes and tissues for the production first of hemoglobin and then urobilin than any other disease.

Lawson found as I did in the early part of last summer that normal adults in warm climates like Louisiana have double the amount of urobilin in their urine than those living in temperate climates. Lawson measured the excess of urobilin in certain diseases and found in pneumonia three or four times more than the normal, in acute rheumatism six times the normal amount, in typhoid from sixteen to twenty times the normal, and by inhaling arsenated hydrogen 120 to 160 times the normal amount are produced.



Lawson never measured the amount in yellow fever. I had made all the preparations necessary to measure this on dogs during this past winter, but a severe and long illness, resulting from my hospital and laboratory work among yellow fever poisons during five months, prevented my accomplishing this important measurement. I think that yellow fever will furnish a larger number and quantity of pigments than any other disease and more urobilin relatively in the first stages of the disease to the other two pigments than any other disease and these facts furnish my reaction as a sure and speedy diagnosis.

Purdy says, page 46 in his *Uranalysis*, "There is diminished excretion of urobilin in conditions associated with diminished metamorphosis of red blood corpuscles as chlorosis and anemia, in convalescence from acute diseases as well as in hysteria and nervous diseases."

I found this true with the convalescents of yellow fever to a very marked degree and Pothier's measurements of hemoglobin agree with these statements of Purdy.

My experiments on dogs with the bacilli of Sanarelli confirmed all my conclusions drawn from experiments in the hospitals.

My companions in the pathological department of the Charity Hospital, Dr. Pothier, chief of laboratory, Dr. Mioton, first assistant and Dr. Couret, second assistant, kindly allow me to use their names and authority as specialists to confirm the value I attach to my reaction for the diagnosis of yellow fever. They have watched daily my experiments, have given a helping hand in my failures and successes until they, as well as I, were convinced of a final success.

I trust that this new weapon of defence, pronounced such by specialists who have seen its birth and growth, may be properly tried and may do good work in the hands of our profession should the dreaded yellow spectre which hovers around the shores of the Gulf of Mexico ever spread its baneful wings in another death-dealing flight over Louisiana and our neighboring states.



## Editorial.

H. M. FOLKES, M. D., . . . . . BILOXI, MISSISSIPPI,

Editor and Business Manager.

COLLABORATORS.—J. R. Tackett, M. D., Meridian, Miss.; W. A. Carnes, M. D., Kosciusko, Miss.; H. A. Minor, M. D., Macon, Miss.; H. N. Street, M. D., Gloster, Miss.; H. H. Haralson, M. D., Vicksburg, Miss.; C. L. Horton, M. D., New Orleans, La.; E. M. Holder, M. D., Memphis, Tenn.; W. A. Evans, M. D., Chicago, Ill.

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### Officers Mississippi State Medical Association, 1898-'99.

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SEC. 7. Admission Cards may be issued by the officers of the Association with the obligation for the candidate's signature in the center and blank marginal spaces on the left and right margins for the signatures of the three members who recommend, and the three officers who admit the applicant to membership.

The above section was adopted in order to admit persons eligible to membership during vacation. Either of the above named officers will furnish, on application, the necessary card.

### Executive Committee Mississippi Department Public Health, 1898.

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GEO. A. TEUNNISSON, M. D.....Monticello  
E. A. ROWAN, M. D.....Wesson

Our esteemed contemporary, the *Journal of the American Medical Association* and a few others, have been in too big an hurry to assail Dr. MacKowen of New Orleans for his attack on the Louisiana State Board of Health so-called.

The rot about his being a new-comer and that even more

foolish statement of the president of the Orleans Parish Medical Society that his expulsion from same was due to social reasons is a fair sample of how much our neighborhood affairs are understood by outsiders. Dr. MacKowen was born in Jackson, La., in 1842, and was a student at Dartmouth College at the outbreak of the civil war through which he served and was mustered out as a lieutenant-colonel of the Confederate cavalry. During his service, in company of five men, he entered the Federal army at Port Hudson and captured Gen. Neal Dow. At the close of the war he returned to Dartmouth and graduated.

From thence, to France and Germany graduating from the University of Munich as an M. D. Being a man of independent means he embraced laboratory work and holds first-class diplomas from German universities in this line. After twenty-three years practice in Rome and Capri, Italy, he returned to New Orleans last year. That the doctor is a scientific man is evidenced by his contributions to contemporaneous literature on "Aromatic Toxins; Diagnosis of Yellow Fever," appearing in this issue, "History and Archeology of Capri," etc. That he has the courage of his convictions goes without saying. Being of independent means he is peculiarly well fitted to make this righteous war on a board of health which some of the ablest and most honest doctors in New Orleans never hesitate to denounce. As to social standing, the MacKowen's are from the Feliciana's and are too well known to require further statement. Now about Mrs. Levy who the Louisiana board men say did not have yellow fever. She did have yellow fever and a signed statement from her physician to that effect is extant and will be produced or proven when the proper time comes.

MacKowen's statements have never been refuted. The doctors whose names he cites have never denied the language attributed to them. The libel suit of Dr. Kohnke has never come to trial. The Louisiana state board has acceded to the requests of the Mississippi state board of health.

The whole sum and substance of this thing is that MacKowen told the truth, be it said to the eternal shame and disgrace of New Orleans.

His expulsion from the Orleans Parish Medical Society was for bringing charges against Drs. Souchon, Kohnke and Dyer, and while these physicians were sustained by their local society

—"social society"—at the bar of public opinion they have been convicted of the charges as MacKowen made them.

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The thirty-second annual meeting of the association, held in Jackson on April 19th, 20th and 21st, was one of the most successful in the history of the organization both as to number of members present and admitted and in variety and value of papers presented. Hon. C. H. Alexander of Jackson delivered the address of welcome, which was splendidly responded to by Dr. P. W. Rowland of Oxford. President Kendrick presided and brought to that important position all the dignity and knowledge which long membership in deliberative bodies had bestowed upon him.

Dr. R. E. Jones of Crystal Springs, well-known as a learned physician and a leader of the profession, was elected president.

The present able and efficient secretary, Dr. J. R. Tackett, was of course re-elected, as was also the old reliable treasurer, Dr. Hunter of Jackson.

Doctors Gant, Hunter, Dunn, Haralson and Paine were recommended as the association's choice as members of the state board of health. All of these gentlemen are at present members of the board except Dr. Paine, thus showing that the association endorses past official acts of the board. The addition of Dr. Paine is a well earned reward for one of the best all around doctors in the state and adds additional force and character to the board.

Owing to the fact that such short time elapsed between the meeting of the association and the issue of *THE JOURNAL* I deemed it best to delay publication of proceedings until June issue.

*THE JOURNAL* is to be sent to such members of the association as have paid their dues. In another place appear regulations bearing on binding of *JOURNAL*.

I have been elected editor and manager of *THE JOURNAL* and again do I appeal to the members of the association to do their part toward making the paper a success, especially do I urge you to remember that ours is a family affair and needs constant care and attention. So please send us the news of the doctors and their families and always write us accounts of your cases and such other matters as may interest the profession.

## Association Notes.

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The publication committee took action as follows :

1. All members of the association who have paid their dues are entitled to *THE JOURNAL* without charge.

2. The list of these members must be furnished Dr. Folkes by Dr. Trotter, assistant secretary, at once.

3. Any member of the association is entitled to a bound and indexed volume of the transactions at the end of the year provided the payment of \$1 in advance is made by the member desiring the bound volume.

4. When this payment of \$1 is made the member making it shall also return the April number and all subsequent numbers that have been received by him up to the time the payment is made.

5. After the payment is made and the numbers already published are returned, Dr. Folkes must lay an extra copy aside each month for this member until the volume is completed.

6. Immediately upon the completion of this volume Dr. Folkes must have the volume bound and send it to the member without any further expense to him.

The secretary was instructed to notify Dr. Trotter, assistant secretary of the association, to furnish Dr. Folkes a list of all members who have paid their dues.

Secretary was instructed to notify Dr. Tackett, secretary of the association, to inform the members of the association of this arrangement.

\* \* \*

Remarks of Dr. Robert E. Jones of Crystal Springs, Miss., president of the State Medical Association, on being inducted into office:

"I am very thankful to you, my friends, for the unexpected compliment that you have paid me by electing me to the presidency of this association.

"It is a position to which I had not thought of attaining. It is a position to which one could have been called who would reflect greater honor upon the association and upon the medical profession of the state.

"I can assure you, however, that you could not have elected



to this honorable position one possessed of greater love for our noble profession, nor one who is more willing to exert himself to advance the interests of the association.

"The session now drawing to a close has been a very successful one. The attendance has been large. The papers presented have been of a high order, and would be creditable to any association.

"Many new members have been added to our roll. Every honorable physician in the State should be a member of the Mississippi State Medical Association.

"Let us be ethical; let us favor a high standard of medical education and proficiency. If some of us have not reached the high standard to which we have aspired, let us point the younger members of our profession to those heights, and ask that they be content with nothing less than their attainment. Now, my friends, let us make the following session, the session of 1900, which meets in the city of Meridian one of greater success even than the present. Let us make it the grandest in the history of the Association."

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## Correspondence.

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EDITOR MISSISSIPPI JOURNAL—As I have been assailed by you in the April number I beg space that I may be allowed to vindicate myself. In the March number of the *Memphis Medical Monthly*, in commenting on a very able article from an essayist, Dr. A. Moore, on "Practical Aseptic Midwifery," I made allusion to our state "licensing midwives." You referred me to the Code, in which it says: "Females engaged in the practice of midwifery are not prohibited from such practice, but are entitled to engage therein without license." A "distinction," I think, "without a difference," and fail to construe otherwise, for being permitted without molestation is equivalent to a license. However, I thank you for the correction.

In regard to your second attack, I simply referred to my observation throughout my territory; to no other. I might have made the same statement in regard to treatment of any disease,

pneumonia or typhoid fever, in one section; while physicians from some other report quite different results.

The midwives in my locality may be more competent, or the environments of their patients different to those of Biloxi. I reiterate I have not seen a case of puerperal fever as the result of their practice, but have had to treat a few cases of ophthalmia neonatorum of the new born. These cases I attributed to uncured gonorrhœa.

I think if midwives "leave such a train of puerperal fever and ophthalmia behind them," notwithstanding they save the physician from a great deal of dirty practice for which they might never receive any remuneration, they should be prohibited from practice for the welfare of those who employ them.

Now, Dr. Folkes, I only referred to my observation in my immediate vicinity, not from a theoretical standpoint, but from actual facts, which should be the base of all theory, just as you state the experience of yourself and others in your locality.

I did not expect when I wrote that article to take issue with any one; only to show my friend and classmate the difference between modern teaching in midwifery and some actual facts that we encounter in the country. But for the length of this paper I would report a recent case of eclampsia which occurred twelve days after delivery. Everything seemed perfectly normal, consequently the cause was remote unless it was from coitus, which her husband confessed. They were negroes and she had been delivered by a negro midwife. I readily relieved her by a hypodermic injection of morphine,  $\frac{1}{4}$  gr., and hydrobromate of hyoscyne, 1-100 gr., followed by purgation.

J. TACKETT, M. D.,

RICHLAND, MISS., April 8, 1899.

\* \* \*

AMERICAN MEDICAL ASSOCIATION—The Section on *Materia Medica*, Pharmacy and Therapeutics of the American Medical Association urges those who desire to read papers in its department at the Columbus meeting, June 6th to 9th, to send on their names and titles of their papers at once to the secretary, who is now making up the final program.

LEON L. SOLOMON, Secretary.

323 W. Walnut St., Louisville, Ky.

## Therapeutic And Other Hints.

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In typhoid, oiled paper straws are invaluable both as a means of giving nourishment and medicine.

\* \* \*

In long continued fevers always remember the teeth and ude alkaline antiseptic mouth washes.

\* \* \*

Keloid on ear has been cured with twenty per cent. creosoted oil.—*Ann. de Derm., Journal American Medical Association.*

\* \* \*

Vaccination mortality in England, 1 in 14,000; in Germany, 1 in 100,000.—*Vienna Klin. Woch., Journal American Medical Association*

\* \* \*

For quinine amaurosis, massage and injections of strychnine.—*Journal American Medical Association.*

\* \* \*

A croup that does not yield to an emetic and a few doses of coal oil and a purgative dose of calomel should be strongly suspected as a case of laryngeal diphtheria, and be treated as such.—*Charlotte Medical Journal.*

\* \* \*

TREATMENT OF BRITTLE NAILS—Dr. N. S. Teft (*Medical Brief*, April), in answer to a correspondent's query, says that for many years he has recommended the use of lemon juice. He recommends the keeping of half a lemon on the washstand and directs that every time the person washes he should put each finger into the lemon and use as little soap as possible. The lemon, he says, neutralizes the alkali and will restore the nails in a week.—*New York Medical Journal.*

\* \* \*

Distilled water is injurious as a beverage owing to its extracting salts from the cells and causing the cells to swell up by imbibition.

Peroxide of hydrogen softens ear wax.

\*\*\*

Look out for tuberculous cervical glands in patients with decayed teeth.

\*\*\*

Observing through blue glass is a striking aid in diagnosing syphilitic skin affections.

\*\*\*

For rebellious mercurialism, saline solution and massage.

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## Public Health.

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DEPOPULATION OF FRANCE.—The *Journal de Med. de Paris* ridicules the various theories advanced to account for the decadent birth-rate in France, which it says is due entirely to the selfish foresight of married couples and the fact that the French are past masters in the art of *coit fruste*.—*Journal American Medical Association*.

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DUTY TO PUBLIC HEALTH.—The court of appeals of New York says: In re Taxpayers and Freeholders of the Village of Plattsburgh, that the charter of that village contains no provision authorizing the trustees thereof to raise money or to contract debts for the purpose of suppressing disease or preserving the public health. But, it continues, the general laws of the state make it their duty to comply with the orders of the local board of health in this respect. Therefore, when that board incurs expense in the performance of its duty in guarding against the introduction into the village of contagious or infectious diseases, or in the isolation of persons or things infected with or exposed to such diseases, or in providing suitable places for the treatment and care of the sick who can not otherwise be provided for, the court holds, it becomes the duty of the municipal authorities to comply with the order, whether there is any provision to that effect in the charter or not. And it expressly declares that a stricter view than this, taken by the



courts below, with reference to the powers of the trustees of the village in this respect, was erroneous.—*Ibid.*

\* \* \*

The state board of health at its recent Jackson meeting appointed the following county health officers:

Adams, J. C. Ballard; Alcorn, J. W. Gilbert; Amite, I. H. N. Street; Attala, W. A. Carnes; Benton, Frank Terrell, jr.; Bolivar, H. L. Sutherland; Calhoun, R. E. Creekmore; Carroll, J. A. McBryde; Chickasaw, J. H. Murphy; Choctaw, J. D. Weeks; Covington, W. M. Blunt; Claiborne, W. D. Redus; Clarke, R. M. Hand; Clay, J. B. Gresham; Coahoma, E. H. Martin; Copiah, G. W. Purnell; DeSoto, T. M. Jones; Franklin, C. F. Hegan; Greene, Saul Poole; Grenada, J. W. Young; Hancock, R. J. Turner; Harrison, W. T. Bolton; Hinds, S. H. Lean; Holmes, G. C. Philips; Issaquena, W. P. Scudder; Itawamba, W. W. Norwood; Jackson, W. R. Kell; Jasper, F. McCormick; Jefferson, J. C. McNair; Jones, S. O. Smith; Kemper, D. C. Mohler; Lafayette, W. H. Baird; Lauderdale, J. R. Tackett; Lawrence, Geo. A. Trunson; Leake, A. L. Morris; Lee, W. C. Spencer; Leflore, N. E. Whitehead; Lincoln, C. H. Trotter; Lowndes, John Brownrigg; Madison, C. S. Priestly; Marion, Buford Larkin; Marshall, Chesley Daniels; Monroe, H. F. Broiles; Montgomery, B. F. Ward; Neshoba, E. L. White; Newnan, G. H. McNeal; Noxubee, H. A. Minor; Oktibbeha, J. W. Eckford; Panola, P. K. Perkins; Pearl River, W. J. Hunnicutt; Perry, Polk Watkins; Pike, R. A. Quinn; Pontotoc, C. D. Mitchell; Prentiss, S. W. Walker; Quitman, W. B. Clarke; Rankin, A. G. McLaurin; Scott, J. J. Haralson; Sharkey, J. C. Hall; Simpson, B. McCollum; Smith, W. H. Hill; Sunflower, W. C. Miller; Tallahatchie, T. B. Harrison; Tate, W. D. Potter; Tippeh, John Y. Murray; Tunica, Morris, J. Alexander; Tishomingo, E. F. Carmack; Union, D. W. Coker; Warren, W. D. Eastland; Washington, J. D. Smythe; Wayne, W. H. Boykin; Webster, Peyton R. Brown; Wilkinson, C. E. Catchings; Winston, W. W. Park; Yalobusha, L. T. Fox; Yazoo, J. A. Crisler.

At the same meeting a communication was presented in which the Mississippi Gulf Coast Society asked that the State Board appoint a medical inspector in each town on the coast. The following physicians were thereupon appointed local in-

spectors, to serve under the rules and regulations of the State Board of Health: W. R. Thompson, Moss Point; W. R. Knell, Scranton and Pascagoula; O. L. Bailey, Ocean Springs; H. M. Folkes, Biloxi; J. J. Harry, Mississippi City and Hardsboro; C. A. Sheeley, Gulfport; J. J. Washington, Pass Christian; R. J. Turner, Bay St. Louis.

## Abstracts and Extracts.

THE DIAZO-REACTION IN TYPHOID FEVER.—E. T. Duke, in the *Maryland Medical Journal* of January 14, 1899, reaffirms the value of Ehrlich's reaction in the diagnosis of typhoid fever. The original formulae are still employed, which we reproduce. They consist of three solutions:

### NO. 1.

Sulphanilic acid.....	4	grains.
Hydrochloric acid.....	1½	drachms.
Distilled water.....	4	ounces.

### NO. 2.

Nitrate of sodium.....	5	grains.
Distilled water.....	2	ounces.

### NO. 3,

Ammonia water.

Add one drop of No. 2 solution to forty drops of No. 1 in a test-tube, to which solution an equal quantity of the urine to be examined is added. Shake well and add a small quantity of ammonia water with a pipette. If the reaction is present, a bright red color will be seen at the point of contact with the ammonia water. The red color will be diffused and a tinted foam will be seen at the top, if the test-tube is shaken; this Duke regards as positive evidence of the success of the reaction.

From the fourth to the seventh day of typhoid fever, and thereafter until convalescence is begun, the reaction is present. In rare cases of phthisis it is occasionally found, but he has only seen it in one case out of a number, and that was in a patient with general tuberculosis. A point regarding this reaction which we do not remember to have seen previously stated is

that sometimes it is not obtained until twenty-four or thirty-six hours after the urine has been passed.

He gives a table of twenty cases of typhoid fever, in which the reaction was obtained in all but three; of these two were convalescent, and in the remaining one the examination was faulty. An examination in twenty-one cases of fever of doubtful origin showed an absence of the reaction; in all but two typhoid was excluded by the subsequent history of the cases. In eight cases of pulmonary phthisis, four cases of scarlet fever, two cases of pneumonia and jaundice, and paresis, the reaction was absent. Out of a total of sixty-one cases it was found but once (a case of general tuberculosis) in a patient not suffering from typhoid fever.

The results obtained by Duke agree substantially with Krokiewicz, who made 16,367 tests in 1,105 cases. He found the reaction present in every case of miliary tuberculosis which ran a rapid course. With the discovery of the Widal test, the diagnostic importance of the diazo-reaction has diminished. The precision of the serum test has necessarily relegated the diazo-reaction to the rear. It is to be remembered, however, that the latter is of great value, particularly as it is usually found several days before the serum reaction can be obtained.

The diagnosis once established by the serum test and the clinical symptoms, the diazo-reaction is of value in observing the course of the disease. Its disappearance marks the beginning of convalescence; if it persist, recovery cannot be said to have taken place, even if the temperature has returned to normal and all clinical symptoms have disappeared; its reappearance marks a relapse in the disorder.

The ease with the test can be applied commends it for general clinical use. There is no reason why any trained nurse cannot be taught to make the test accurately. A daily record of the presence of the reaction would be of great value in the clinical record of a case of typhoid.

The diazo-reaction is of undoubted value in the diagnosis of typhoid fever. Its clinical application is so easy that it should be employed in every case. While less certain than Widal's test, the latter is practically possible excepting in a well equipped laboratory.—*Hot Springs Medical Journal*.

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FOWLER'S METHOD FOR THE RADICAL CURE OF INGUINAL

HERNIA.—Dr. G. R. Fowler sums up the essential steps of the operation as follows: (*Medical Record* Oct. 8, 1898). A curved skin incision which furnishes easy access to all the parts involved in inguinal hernia. Splitting the anterior wall of the inguinal canal from the external to the internal ring. Isolation of the cord and sac together from the surrounding parts, after which these are separated from each other and cleared well up to the internal ring. Double ligature of the deep epigastlic artery, with sufficient space between the ligatures to permit of incision. Cutting away of the neck of the sac and incision of the posterior wall of the inguinal canal and Hesselbach's triangle. The cord is transplaced into the peritoneal cavity from the site of the internal to a point below the level of the pubic bone. Broad approximation and suturing of the peritoneum and transversalis fascia in front of the cord for the space mentioned. Obliteration of the internal ring and inguinal canal by accurate suture, and strengthening of Hesselbach's triangle and the new point of emergence of the cord by outward displacement of the pubic attachment of the corresponding rectus muscles.—*Charlotte Medical Journal*.

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WINKELMANN'S OPERATION FOR HYDROCELE.—Winkelmann has been practicing for a year and a half with most satisfactory results, a very simple but radical method of treating hydrocele. The fluid is released through an incision three to four centimeters in length, nearer the upper pole, after Schleich local anesthesia. The testis is then drawn outward as far as possible until stripped of the serous tunica vaginalis covering, which is thus turned wrong side out. A stitch or two is taken to prevent the testis from slipping back into its sac and the testis and the tunica are replaced, and the skin sutured. Adherences soon form, and this harmless operation proves as effective as the more radical ones. The testis is a trifle higher than normal, and a slight edematous swelling may form for a short time, but there are no other inconveniences, and the patient can be dismissed at once, as there is no danger of hemorrhage.—*Journal of the American Medical Association*.

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ON TUBERCULOSIS IN CHILDHOOD—Dr. Comby (*Klin. Therap. Wochenschr.*, 1898, Vol. 504) read a paper with the above



title at the Fourth French Congress for Internal Medicine, held at Montpellier, April 12 to 16, 1898. The following is a resume:

Among 235 children of the ages from 0 to 2 years on whom a post mortem was made 28 (=12 per cent.) were tuberculous; no child under three months, however, was among these. Further statistics showed that the frequency of tuberculosis increases with the age, and reaches the highest point at two years of age. These statistics speak against heredity and in favor of contagion. The child which is able to walk is in a much greater measure endangered from inhaling dust containing bacilli than the child still in its cradle. The almost constantly present cheesy degeneration of the tracheo-bronchial lymphatic glands as compared with the relatively recent date of organic tuberculosis, points to the former as the entrance portal of childish tuberculosis. The child becomes tuberculous by way of the respiratory organs, not through the digestive tract. In twenty-eight post-mortems held on tuberculous children up to two years of age, all presented a cheesy degeneration of the tracheo-bronchial lymphatic glands; in twenty-one the lungs were found infiltrated; of these seven presented cavities. Tuberculosis in childhood, as a rule, runs a rapid course, and cavities may be formed within a few weeks. The following three forms of childish tuberculosis may be distinguished:

1. The *Apyretic Form*, presenting an acute miliary tuberculosis or cavity formation. In these cases dyspeptic symptoms are most prominent.

2. The *Febrile Form*, occasionally accompanied by hyperthermia; the disease picture presents a similarity to pneumonia, typhoid fever or meningitis.

3. The *Common Ulcerative Form* or *Phthisis*, which is relatively rare.

In the infant at the breast the disease may produce such destructions in the course of weeks as are otherwise only met with after the disease has lasted years. There is present a marked tendency to the appearance of a generalized miliary tuberculosis. The complicating diseases which are unfavorable to the course of tuberculosis are in particular measles, whooping cough, la grippe, and diphtheria.—*Pediatrics.*

**NEW METHOD OF PRESERVING MEAT.**—A new method of preserving freshly killed meats has been discovered by the Danish zoologist, August Fjelstrup, already well known through this method of condensing milk without the use of sugar. The system (according to the printed reports) has stood a remarkably hard three months' test at the Odense (Danish) Company's slaughterhouses, in a very satisfactory manner.

The method in itself is extremely simple, and might be of great service for the troops in the tropics (the writer having had considerable experience in trying to keep meat fresh in Cuba).

The animal to be used is first shot or stunned by a shot from a revolver (loaded with small slugs) in the forehead, in such a way as not to injure the brain proper. As the animal drops senseless, an assistant cuts down over the heart, opens a ventricle, and allows all the blood to flow out, the theory of this being that the decomposing of the blood is almost entirely responsible for the quick putrefaction of fresh meats. Immediately thereafter a briny solution (made of coarse or fine salt, more or less strong, according to length of time meat is to be kept) is injected by means of a powerful syringe through the other ventricle into the veins of the body.

The whole process takes only a few minutes, and the beef is ready for use and can be cut up at once. This method has been examined and very favorably reported on by the general councils at Odense and Aarhus, and also by many experts.

OLIVER J. D. HUGHES, Consul.

—Sanitarian.

\* \* \*

**PARASITE OF CANCER.**—A number of observers have noted a parasitic fungus in cancers, in the shape of spherules and cylindric cells, but they have variously interpreted. Bra now asserts that they are probably actinomycetes, and that he has found them constantly in the blood or sections of the cancer in six personal observations, which increases the total to twenty-two cases of cancer of the uterus, mammae, ovary or rectum, or withelioma of the tongue or cervix, in which these parasites have been noted in the blood. He further makes the important announcement that by injecting animals with cultures of this fungus derived from human cancer, he has produced tumors with the typic structure of fibrosarcoma and carcinoma, also that

cultures derived from these experimental tumors constantly proved to be cultures of the parasite in question, the cultures from the human tumors. The best culture-medium was from bouillon made from cows' udders kept at 30 to 35 C., with 2 per thousand sea salt. The aerobic cultures appear the fifth day with a thin whitish-gray film on the surface and at the bottom of the tube. They also flourish well on the usual media. When spores are expelled the cultures turn pink as the spores are red. The *Presse Med.* of February 22 contains Bra's detailed account with cuts.

\* \* \*

A really pure system of morals would treat not of acts but of the motives which prompt them. If this truth were more fully realized society would be less full of viciousness luxuriating broadcast and unmolested under the cloak of virtue, by complying with the letter of conventional law, and of virtue driven into byways, from which it would gladly escape, to be howled down as vicious by the whited sepulchre of a hypocritical conventionality.—Editorial, N. Y. Med. Journal.

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## Medical News and Miscellany.

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ERRATA—On page 503 of this issue, second paragraph from top should read: "The hemoglobin was tested in recent cases during course of disease and in convalescents. In the recent cases and during the course of the disease the percentage of hemoglobin never exceeded 72 per cent., except in one case which proved fatal, where it was found as high as the control, 90 per cent.; the lowest percentage in this series was 50. In convalescents the lowest percentage was 64 and the highest 80. These percentages show a decided loss of hemoglobin during the disease and a slow return to normal in convalescents."

The JOURNAL desires to express appreciation to the Anti-kamnia Co. for the valuable and artistic "Foetation and Parturition Chart" recently sent.

Fairchild Bros. & Foster have our thanks for a nice little

letter opener and when we can't find their's the one sent by the old reliable Listerine Co. always comes in handy and serves to remind us of that valuable preparation.

Dr. W. H. Maybin, formerly of this place, more recently of Columbus, has decided to return to "Biloxi Bacon" and from this on is a coaster once more.

The American Medical Association meets in Columbus, O., on June 6, 7, 8 and 9, commencing on Tuesday, 6th, at 11 o'clock a. m. Delegates are requested to signify which section they wish to affiliate with. Secretaries of medical societies will please forward at once names of delegates and members of society to Wm. B. Atkinson, M. D., Per. Secretary, 1400 Pine street, Philadelphia, Pa.

Females under forty years of age who have had yellow fever are desired for army service in Cuba. Transportation allowed; salary \$50.00 per month and board. For further particulars address Dr. J. R. Tackett, Meridian, Miss.

THE MEDICO-CHI WINS—SUPREME COURT SAYS IT CAN GRANT DEGREES IN DENTAL SURGERY.—The Medico-Chirurgical College petitioned Common Pleas Court No. 3 for leave to amend its charter so as to grant the diplomas and degrees in dental surgery, etc. This was resisted by the Philadelphia Dental College on the ground of want of authority to do so, etc. The Common Pleas Court decided in favor of the Medico-Chi, and the Dental College took an appeal from his decision. The Supreme Court, in an opinion of Justice Dean this morning, confirmed the decision of the lower court and dismissed the appeal.

SANMETTO ALWAYS RELIABLE IN STRENGTH—I have one word of praise to say for Sanmette, viz: That the last bottle gives the same results as the previous one, or in other words, Sanmetto is always reliable in strength.

Kansas City, Mo.

MARK C. MYERS, M. D.

Drs. Jelks and Holland, editors of the *Hot Springs Medical Journal*, opened the Ozark Sanatorium, Hot Springs, Ark., March 15th, for the reception of patients. The building is four



stories high, with hydraulic elevator. It has bath tubs on each floor, and in addition a large bath room in the basement. It has a government hot water privilege, and the sanitary and hygienic arrangements of the building are perfect. It has a well-appointed surgical department, fitted up with the latest appliances, the operating room of which has been constructed with great care, and has not a superior in the west. Especial care will be taken to provide for patients who need dietetic treatment. The sanatorium building is surrounded by verandas, and has large grounds, beautifully shaded with forest trees, affording ample opportunity for fresh air and exercise. Trained nurses are in constant attendance and the institution is in charge of a competent matron.

NAVAL MEDICAL INCIDENT—One of the gunners of Admiral Schley's fleet is said to have lost his reason as a result of the naval battle of July 3, with Cervera's squadron. He is now in St. Elizabeth's Insane Asylum, Washington, D. C., undergoing treatment. The patient's trouble began with concussion of the brain, caused by the detonation of the heavy guns fired during the fight. This is regarded as an unusual case. The report set forth that eight of the ten casualties upon the American ships in the battle of Santiago were ruptures of the ear drums, caused by the terrific cannonading. One of the cases was that of Lieutenant Harrison of the Oregon, who stuck his head out of a turret just as a thirteen-inch rifle was fired. The noise and shock of the explosion lacerated the drum of both ears, and for a time he was totally deaf. Under the careful treatment of the naval surgeons he is gradually recovering his hearing and will in all probability be as well as ever in a few more months. All the other men who were similarly affected have been cured and have returned to their ships for duty. During the fight at Manila there is no record of any of Admiral Dewey's men receiving injuries of this sort. The explanation of this is simple. The gunners on battleships are accustomed to plug their ears with cotton to protect them before firing begins, but at Santiago there was no chance for precautions of this kind. The men were on deck for inspection at the time the enemy was discovered issuing from the harbor, and they simply rushed to their guns and began blazing away without thought of cotton or anything else. At Manila the men were all prepared for the fight,

every precaution having been taken to prevent injury to ear drums, etc.—*Journal American Medical Association.*

Life is not a bed of roses,  
When the vile tuberculosis  
Has the upper hand,  
But the rationalisation  
Of the ladies of our nation  
So I'm given to understand,  
Will remove its awful terrors,  
Due to skirts and sweeping errors  
In the costume a la mode.  
Yet I never had a notion  
That the poetry of motion  
Gathered microbes from the road,  
And the cause of all distress is  
Mud that dries upon the dresses,  
Harboring a wealth of dirt—  
At least Lady H. supposes  
This to be the diagnosis  
Of the fell tuberculosis.  
Why not try the "Bloomer" precess  
And eschew the poisoned skirt?

—*The Sanitary Record, London.*

# The Journal

.....of the.....

## Mississippi State Medical Association.

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VOL. III.

JUNE, 1899.

No. 3

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### The Association.

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The Thirty-Second Annual Meeting of the Mississippi State Medical Association met in Representative Hall, Jackson, April 19, 1899, at 12 o'clock. Dr. C. Kendrick of Kendrick, president, in the chair.

#### MORNING SESSION, APRIL 19, 12 M.

Association called to order, Dr. C. Kendrick, president, in the chair.

Prayer by Rev. W. F. Yarborough of Jackson.

Roll call by the Secretary showed the following members present: M. J. Alexander, Tunica; T. A. Barber, Meridian; J. E. Banks, Blountville; J. C. Ballard, Natchez; John Brownrigg, Columbus; J. A. K. Birchett, Vicksburg; W. H. Barr, A. and M. College; J. M. Buchanan, Meridian; D. B. Crawley, Kings; E. C. Coleman, Kosciusko; J. A. Crisler, Yazoo City; G. M. D. Chester, Free Run; B. L. Culley, Jackson; E. A. Cheek, Arcola; Henry Christmas, Tchula; C. E. Catchings, Woodville; B. F. Duke, Moss Point; S. R. Dunn, Greenville; J. W. Dulaney, Rose-dale; S. T. Dunning, Canton; J. E. Davis, Columbus; John Dar-rington; Eden; J. W. Eckford, Starkville; M. C. Ellis, Senatobia; Lee T. Fox, Water Valley; H. S. Gully, Meridian; A. C. Halbert, Columbus; J. C. Hall, Anguilla; J. J. Haralson, Forest; H. H. Haralson, Vicksburg; J. F. Hunter, Jackson; H. H. Harrison,

Tillatobia; J. W. Jordan, Lexington; W. A. Johns, Corinth; C. Kendrick, Kendrick; W. G. Kiger, Brunswick; W. C. Lawrence, Crawford; M. J. Lowry, Meridian; S. D. Luse, Dover; C. M. Murry, Ripley; A. G. McLaurin, Brandon; L. A. Murdoch, Woodville; C. D. Mitchell, Pontotoc; S. H. McLean, Jackson; K. P. Perkins, Batesville; W. M. Paine, Aberdeen; E. B. Pool, Clinton; J. H. Rhodes, Jackson; H. N. Street, Gloster; A. H. Bays, T. J. Mitchell, Jackson; L. Dickerson, W. W. Robertson, McComb; N. E. Whitehead, Greenwood; Nolan Stewart, Jackson; H. L. Sutherland, Bolivar; W. S. Sims, Jackson; W. H. Scudder, Mayersville; W. E. Todd, Jackson; O. M. Turner, Jackson; J. R. Tackett, Meridian; C. H. Trotter, Bogue Chitto; J. D. Walker, Steen's Creek; Polk Watkins, Hattiesburg; J. M. Wells, Cleveland; Edwin Wright, Sardis; W. W. Reynolds, Meridian; R. E. Jones, Crystal Springs; F. L. Fulgham, Jackson; J. M. Dampeer, Crystal Springs; T. W. Foster, Zeiglersville; R. E. Howard, Durant; T. R. Trotter, B. F. Ward, Winona.

In the absence of several members of the executive committee the president appointed the following members to fill the vacancy: W. H. Barr, E. M. Ellis, S. R. Dunn, T. L. Fox, S. A. Majure, J. E. Banks, J. H. Rhodes.

This committee then adjourned to make their report, and while the association was awaiting their report volunteer papers were called for and Dr. H. H. Haralson of Vicksburg read a paper on "Variola, as I have seen it in Mississippi." Discussed by Drs. Todd, Dulaney, Sutherland, Crisler, Brownrigg, Reynolds, McLean, Gully and Culley.

Dr. Rhodes, chairman of the executive committee, made the following recommendation for membership, which was received: T. A. Corder, Lulu, Coahoma; W. R. McKinley, Columbus, Lowndes; T. E. Ross, J. J. Stevens, Hattiesburg, Perry; W. H. Baird, Oxford, Lauderdale; J. S. Voyles, Corinth; M. R. Clark, Pontotoc, Pontotoc; C. M. Taylor, Corinth; W. J. Hunnicutt, Poplarville; T. B. Hallamon, Ittabena; Reuben B. Baugh, Polkville; M. C. Reeves, Hutchins; W. W. Reynolds, Meridian; J. A. Dilworth, Van Vleet; J. M. Anderson, Firza; W. T. Matthews, Water Valley; T. M. Jones, Hernando.

On motion, association adjourned to meet at 2:30.

#### AFTERNOON SESSION, 2:30.

Association called to order by the president.



First order of business was the selection of the nominating committee from each district.

The selection resulted as follows: 1, W. A. Johns, Corinth; 2, K. P. Perkins, Batesville; 3, H. L. Sutherland, Rosedale; 4, C. D. Mitchell, Pontotoe; 5, E. C. Coleman, Kosciusko; 6, L. Dickerson, McComb, and J. C. Ballard, Natchez; 7, R. E. Jones, Crystal Springs.

The president then obligated the new nominating committee.

Dr. M. J. Lowry, Meridian, offered the following resolution:

"Whereas, the American Medical Association at the meeting in Denver, 1898, passed a resolution denying the privilege of registration at future meetings either as delegates, permanent members or members by application, to professors in medical colleges and graduates thereof, not requiring attendance on four courses of lectures after January 1, 1899; and,

"Whereas, said resolution is clearly in conflict with that part of the constitution defining membership in the association; be it, therefore,

"Resolved, that it is the sense of the Mississippi State Medical Association that the resolution should be referred to the judicial council of the American Medical Association at the next meeting, which body should declare it null and void.

"Resolved, further, that any attempt to enforce such a resolution, if it were constitutional, would be both unfair and unjust to the medical colleges constituting the Southern Medical College Association. The association prior to the Denver meeting of the American Medical Association had already taken steps looking toward the establishment of a four year's graded course of instruction, which is now an accomplished fact.

"Resolved, further, that any attempt to amend the constitution of the American Medical Association as to the part defining membership, at the meeting in Columbus, O., which would not give to the colleges of the south the privilege of graduating at the end of the third course these students that have already matriculated would be unfair to the college and unjust to the students who feel that there is an implied contract between them under the three course plan."

Resolution was adopted.

Dr. J. S. Cain, Nashville, offered the following resolution in reference to the above: "Resolved, that the copy of this preamble and resolutions shall be furnished to the members of the

judicial council of the American Medical Association from this State and that a like copy be mailed to chairmen of the said judicial council of the American Medical Association."

Resolution carried.

Moved by Dr. Duke and carried, that Sec. 3, Art. 8, of the Constitution be suspended in regard to delinquent members until the next meeting of this body. In this connection the assistant secretary is instructed to notify these members that unless satisfactory settlement is made by that time their names will be dropped from the roll according to the constitution."

"Intestinal Asepsis in Medicine and Surgery," paper by Dr. J. H. Kellogg, Battle Creek, Mich., read by Dr. C. E. Steward, of Battle Creek, Mich. Paper was received with thanks by the association and referred to publication committee.

Executive committee made the following recommendations for membership: Drs. G. W. Robertson, Magnolia; W. W. Crawford, Tylertown; J. M. Alford, Gallman; S. N. Walker, Baldwin, J. D. Donald, Hattiesburg; W. H. Arnold, Eupora.

On motion, Dr. J. S. Cain, of Nashville, read his paper on "Immunization and cure of disease."

The thanks of the association was extended Dr. Cain for his paper.

"A case of eclampsia," by B. L. Culley of Jackson. The thanks of the association was extended Dr. Culley for his paper. The paper was discussed by M. J. Lowry.

Next paper was read by E. A. Cheek of Arcola on "Water supply of rural districts."

Paper referred to publication committee with thanks of the association.

Moved that the association adjourn until 8:30 for the meeting of the department of public health.

On motion of Dr. Haralson the department of public health was carried over until next year with the same officers. Owing to the departure of Dr. Tackett, secretary, who was in the war and out of the states, nothing was done in this department during 1898.

On the subject of "Sanitation," connected with the department of public health, the following members discussed the subject: Drs. Brownrigg, Perkins, Phillips, Baird, Dunn, Wright, Crisler, Christmas, Hall.

Dr. Christmas offered a resolution to have a legislative com-

mittee appointed by the president, two from each district, to draft resolutions and bills regarding the condition of the health officers, etc.

#### EVENING SESSION, 8:30.

Association called to order, Dr. Kendrick in the chair.

The president then introduced Hon. C. H. Alexander of Jackson, who delivered the address of welcome. Mr. Alexander's address was replete with beauty, eloquence, wit and humor.

The president then introduced Dr. P. W. Rowland of Oxford, who, on behalf of the association, responded to the address of welcome in a most pleasing and happy manner.

By Dr. Crisler—

Resolved, that the thanks of the association be extended Mr. Alexander for his excellent address. Carried.

The president then read his address on the subject "The Mississippi State Medical Association."

It was moved by Dr. Hunter that the address of the president be received with thanks of the association and be referred to publication committee.

It was moved by Dr. Lowry that the thanks of the association be extended Dr. Rowland for his valuable paper.

Next paper was read by Dr. B. F. Ward of Winona.

Moved that the thanks of the association be extended Dr. Ward for his valuable paper and same referred to publication committee.

Discussed by Drs. P. W. Rowland, Crisler, McLean; discussion closed by Dr. Ward.

Dr. J. C. Ballard, Natchez, gave an oral resume of his treatment for consumption.

Dr. W. W. Robertson, McComb City, "Circumcision."

Thanks of the association extended Dr. Robertson and same referred to publication committee; discussed by Dr. J. E. Davis.

#### THURSDAY, APRIL 20, MORNING SESSION, 9:30.

The association convened in Representative Hall, Dr. Kendrick in the chair.

The first order of business was the reading of papers. "A case of extensive fracture of the vault of the cranium, destroying the orbital cavity," by Eugene J. Johnson, Eden.

It was moved that the paper be received with thanks and

referred to publication committee; discussed by Drs. Christmas, Crisler, Darrington, Kendrick.

"Report of cases," by John Darrington, Yazoo City.

Paper was received with thanks of the association and referred to committee on publication; discussed by Drs. Crisler, Culley, Johnson; discussion closed by Dr. Darrington.

The executive committee made their report and the following new names were recommended for membership: G. H. Purnell, Hazlehurst; H. L. Noel, Torrance; Wm. McBride, Yandell; O. H. Swayze, Yazoo City; Julius Crisler, Flora; Wm. C. Stiles, Starkville.

"Depopulation of towns infected with yellow fever; a prophylactic measure and business proposition; time and method," by H. H. Haralson of Vicksburg.

Papers received with thanks of the association and referred to publication committee; discussed by Drs. Brownrigg, Ward, Dunn, Culley, Barr, Gant.

Next paper on the program, "Mild types of infectious diseases, especially small-pox and yellow fever, the results of modern public hygiene," by H. A. Gant of Water Valley.

Paper of Dr. Gant was referred to publication committee with thanks of the association; discussed by Drs. Brownrigg, Stevens, Sexton, Ward.

The executive committee made the following report of new names for membership: E. H. Martin, Clarksdale; Ira L. Parsons, Brookhaven; Robert Anderson, Love Station; F. O. Horne, Union.

"Crico-tracheotomy," by Julius Crisler, Flora.

Paper received with thanks of the association and referred to publication committee.

"Secondary nerve suturing," by C. E. Catchings, Woodville.

Paper received with thanks of the association and referred to publication committee.

"Report of cases," by John E. Davis, Columbus.

Paper received with thanks of the association and referred to publication committee; discussed by Drs. Guice, Crisler and Smythe.

By the consent of the association Dr. F. D. Smythe of Memphis was asked to read his paper.

Moved that the association adjourn to meet at 2:30. Carried.



## AFTERNOON SESSION, 2:30.

Convention convened, Dr. Kendrick in the chair.

The first order of business was the bringing up of the publication of transactions.

Dr. Phillips desired the old way of publishing the transactions in book form.

Dr. Haralson read the report of Dr. Folkes, editor and business manager of THE JOURNAL OF THE STATE MEDICAL ASSOCIATION, giving standing, indebtedness, etc., of THE JOURNAL.

Dr. Lowry don't like the new way of printing proceedings in THE JOURNAL; can't keep up with the papers; don't know what is going on; wants it like the old way.

Dr. Rhodes don't care to have THE JOURNAL suspended.

Dr. Kendrick spoke in favor of THE JOURNAL.

Dr. Davis spoke against THE JOURNAL.

On motion, a vote was taken to determine whether the old way of publishing the transactions in book form or the publication of THE JOURNAL should be adopted resulted in the keeping up of THE JOURNAL and resuming publication.

Dr. M. J. Lowry of Meridian read a valuable paper on "Some medico-legal points."

Paper was referred to the publication committee with the association's thanks; discussed by Drs. Phillips, Turner, Trotter, Guice, Sutherland, Christmas.

The executive committee approved the following application of new members: Drs. D. Goodman Mohler, Scooba; R. M. Sadler, Okalona; R. M. Butler, Liberty; J. W. Bethea, Fernwood; R. W. Thompson, Lumberton; W. D. Arnold, McCool.

Dr. M. J. Lowry of Meridian read a paper on "Artero-venous aneurism removed from scerpas triangle."

Paper was referred to publication committee with thanks of the association.

Dr. W. A. Johns read a paper on "Ostomycosis, or ear mold."

Paper was referred to publication committee with association's thanks; discussed by Dr. Crisler.

Dr. Smythe read a paper which was referred to publication committee with thanks of the association.

Dr. Robinson of McComb City read a paper on "Pneumonia."

Paper was referred to publication committee with thanks of the association; discussed by Drs. Gant, Howard, Christmas,

Jones, Holbert, Guice, Winchester, Street, Culley; discussion closed by Dr. Robertson.

Dr. Crisler of Yazoo City read a paper on "The practical observance of asepsis and antiseptics by we country doctors."

Paper was referred to publication committee with thanks of the association.

On motion of Dr. Haralson Meridian was placed in nomination as the place for the next meeting of the association. The resolution was carried over until to-night.

The following resolution was offered by Dr. Kiger:

Resolved, that Article VI of the constitution of the Mississippi State Medical Association be, and the same is hereby repealed, and in lieu thereof the following rendition of the subject matter of Article VI be:

#### ARTICLE VI—NOMINATIONS OF OFFICERS AND APPOINTMENT OF COMMITTEES.

Section 1. The election of officers of the association and the election of members of the state board of health by the association, in accordance with the provisions of law, shall be by ballot in open session, and a member shall be considered disqualified from holding any office of the association who either directly or indirectly electioneers for the same.

Sec. 2. The executive committee shall have espionage over the elections of the association with power to remove any nominees from the ballot where the same is subject to the plea of disqualification.

Sec. 3. The president-elect shall appoint the chairmen of sections, the standing committees and the delegates of the association.

Sec. 4. In the selection of delegates to the American Medical Association or any other national or state medical association, the several portions of the state shall be equitably represented as far as practicable.

Resolved second, that the consideration of the above constitutional amendment shall be entertained by the association immediately after roll call at the meeting in 1900.

On motion, the resolution was laid over until next meeting.

#### EVENING SESSION, 8:30.

Association convened at 8:30 o'clock, Dr. Kendrick in the chair.

Motion prevailed that all visiting physicians should read their papers this evening and that the evening be given to them entire. A motion by Dr. Guice that no one discuss any paper longer than five minutes was passed.

Dr. Frank A. Jones of Memphis read an interesting paper on "A consideration of treatment of valvular lesions of the heart."

Paper received with thanks of the association and referred to the publication committee.

Dr. L. Sexton of New Orleans read several interesting papers on minor surgery—"Empyema," and "Large abscess of right lobe of the liver successfully treated."

Papers were received with thanks of the association and referred to the publication committee. Discussed by Drs. Hunter, Crisler, Howard, Guice, Smythe, Ellis, Dunn. The discussion was closed by Dr. Sexton.

Dr. E. M. Holder of Memphis read an interesting paper on "The difficulty of differential diagnosis in gunshot wounds of the abdomen."

Paper was received with thanks of the association and referred to the publication committee. Discussed by Drs. Sexton, Smythe and Johnson. The discussion was closed by Dr. Holder.

The motion then was discussed as to the association going to Meridian for the 1900 meeting. Dr. Guice spoke in favor of a change of the association. Dr. Phillips opposed the change. Dr. Paine favored it. Dr. Davis favored Jackson. The vote was taken (a rising vote) and it stood 27 to 27. The secretary cast the deciding vote and Meridian was selected. It was then made unanimous. On motion the association adjourned to meet at 9:30 to morrow.

#### MORNING SESSION, FRIDAY, APRIL 21, 9:30.

Association convened at 9:30, Dr. Kendrick in the chair.

First order of business was the taking up of papers.

The papers by Drs. Minor, Halbert, Fox, Street and others, who were absent, were read by title and referred to publication committee.

Dr. Lockwood of Crystal Springs read a most interesting paper on "The mind in the presence of disease."

Referred to committee on publication, with thanks of the association.

Dr. R. E. Jones of Crystal Springs also read a valuable paper on "Quarantine unity of the medical profession essential to its enforcement."

Paper was referred to publication committee with thanks of the association; discussed by Drs. Lockwood, Gant, Dunn and Guice.

The following, appearing in the Vicksburg Herald, issue of Friday morning, April 21, was read before the association: "The state medical association is grinding along, but their proceedings are of a very monotonous character, interesting only to the physicians. Among the several papers read to-day was one by Dr. Haralson of Vicksburg on 'Depopulation,' in which he took the stand that it is best for the citizens of the community to run on the appearance of infectious diseases. This paper was discussed by several of the most prominent members of the association, most of them agreeing with Dr. Haralson. The paper was complimented, received with thanks of the association and referred to the publication committee."

On motion, the following resolution offered by Dr. Dunn was adopted:

"Whereas, the attention of the Mississippi State Medical Association has been called to an article in the Vicksburg Herald of April 21st pertaining to be a report of a paper read by Dr. H. H. Haralson, discussed by members and endorsed by the association and tending to mislead the general public as regards to the contents of the doctor's paper, we, the members of the Mississippi State Medical Association declare the same to be incorrect and misleading and we herewith ask the Vicksburg Herald to give this resolution the same publicity as the article alluded to."

On motion of Dr. Paine a resolution was passed increasing the secretary's honorarium from \$50 to \$100 and the assistant secretary's from \$25 to \$50.

Dr. L. A. Murdock of Woodville read a paper on "Extra uterine pregnancy."

The thanks of the association was extended Dr. Murdock for his valuable paper and same referred to publication committee.

Dr. W. W. Robertson of McComb City read an interesting paper on "Placenta previa."



Referred to publication committee with thanks of the association.

Dr. W. S. Sims of Jackson read a paper with the following title: "Some remarks on the causes of blindness of thirty-three pupils at the Mississippi State School for the Blind;" discussed by Drs. Barber, Rhodes, Johns, Culley, Robertson and Guice.

Referred to publication committee with thanks of the association.

Dr. T. A. Barber of Meridian read a valuable paper on "Electrolysis in the treatment of the lacrymal apparatus."

Referred to publication committee with thanks of the association.

On motion of Dr. Gant the rules were suspended and Dr. R. B. McKinney of Memphis read a paper on "Tubercular laryngitis;" discussed by Drs. Dunn, Johns, Guice and Barber.

On motion of Dr. Tackett a resolution was passed appropriating \$20.12 to Dr. Haralson for amount due him as shown by the old books of THE JOURNAL.

The executive committee passed on the application of Dr. E. L. Irby of Tunica and he was admitted to membership.

It was moved by Dr. Paine and seconded that \$25 be given to Dr. Hunter as honorarium for services as treasurer.

On motion of Dr. Gant: "That any member who shall send to the publisher of THE JOURNAL \$1 before the 1st of May shall be entitled to a bound indexed volume of THE JOURNAL at the end of the year in addition to his regular monthly copy, provided he returns his April number."

It was moved by Dr. Kiger to amend the same and refer this to the committee on publication with instructions to carry out the resolution if practicable. Carried.

The rules were suspended and the nominating committee made their report. Adopted.

On motion of Dr. Dunn to delegate power to any member who desires attending the American Medical Association.

On motion of Dr. Paine the following resolutions were adopted:

Resolved first, That the thanks of the association be extended to our president for his courteous attention and rulings as a presiding officer.

Resolved second, That our highest appreciation of the faith-

ful services is hereby expressed to our faithful secretary and his assistant.

The president then appointed three to escort the new president, Dr. R. E. Jones, to the chair, who spoke feelingly, etc.

It was moved, seconded and carried that the association adjourn to meet in the city of Meridian the third Wednesday in April, 1900.

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## REPORT OF NOMINATING COMMITTEE.

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TO THE MISSISSIPPI STATE MEDICAL ASSOCIATION:

Your nominating committee believing that their action in matters devolving upon them has been for the best interest of the association beg leave to submit the following report:

We nominate, subject to your approval, the following for members of the State Board of Health—Drs. H. A. Gant, Water Valley; J. F. Hunter, Jackson; H. H. Haralson, Vicksburg; S. R. Dunn, Greenville; W. M. Paine, Aberdeen.

For officers of the association for ensuing year—Drs. R. E. Jones, president; J. L. McLean, first vice president; C. D. Mitchell, second vice president.

For Executive Committee—Drs. W. C. Spencer, first district; W. S. Weissinger, second district; H. L. Sutherland, third district; H. A. Minor, fourth district; J. M. Buchanan, fifth district; J. C. Ballard, sixth district; J. H. Rhodes, seventh district.

For chairmanship on the various sections, as follows:

Surgery—J. E. Davis, Columbus.

Nervous Diseases—Nolan Stewart, Jackson.

Hygiene—L. T. Fox, Water Valley.

General Medicine—L. E. Murdock, Woodville.

Gynecology—W. A. Carnes, Kosciusko.

Diseases of Children—W. W. Robertson, McComb City.

Obstetrics—H. N. Street, Gloster.

Eye, Ear, Nose and Throat—W. A. Johns, Corinth.

Bacteriology—Chesley Daniels, Holly Springs.

Materia Medica and Therapeutics—John Darrington, Yazoo City.

Rectal Diseases—John A. K. Birchett, Vicksburg.

Dermatology and Venereal Diseases—H. M. Folkes, Biloxi.

The following standing committees:

Publication—Drs. John F. Hunter, J. R. Tackett, C. H. Trotter, H. H. Haralson, H. M. Folkes.

Necrology—Drs. B. F. Ward, J. W. Gilbert, N. L. Guice, J. H. Purnell, J. D. Smythe.

Arrangements—Drs. R. E. Jones, H. S. Gully, M. J. Lowrey, J. R. Tackett, R. L. Turner.

Contributions—Drs. H. A. Gant, J. R. Tackett, T. R. Trotter, C. H. Trotter, D. S. Humphreys.

Committee of Public Health—Drs. C. Kendrick, first district; W. S. Weisinger, second district; W. G. Kiger, third district; J. Mell Smith, fourth district; E. C. Coleman, fifth district; Buford Larkin, sixth district; E. A. Rowan, seventh district.

Delegates to the American Medical Association—Drs. J. W. Jones, B. L. Culley, J. W. Bethea, J. R. Tackett, M. R. Clark, Med Catchings, T. T. Bonner, E. C. Coleman, C. M. Taylor, R. P. Wendel, J. N. D. Shinkle, E. H. Martin, J. D. Smythe, C. M. Murray.

W. A. JOHNS, Chairman.

E. C. COLEMAN, Secretary.

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## REPLY TO ADDRESS OF WELCOME.

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### MR. PRESIDENT AND GENTLEMEN OF THE ASSOCIATION:

It is hardly necessary to say, sir, that we accept, with a great deal of pleasure, this invitation to the capital of the state. Thirty and more years have passed away since this body began its regular sittings as the representative body of medical men of the state. We have been so often invited to come here and to be at home here that we have come to regard Jackson as a part of ours, aside from the interest we feel in her as the seat of government of our state.

In all these years this association has not retrograded. On the other hand there has been constant development and growth. The demands of the law of progress have been fully met. Her ideal has always been, and is now, an exalted one, viz: To attain to the highest degree of usefulness to the commonwealth as it is possible for it to do. The possibilities are without limit. Never before, in the history of this association, have we faced such responsibilities as we now have upon us.

And while we have broadened and developed we are glad to be able to say that, from what we see around and about us, Jackson has caught the fever of expansion; expansion at home, however. We can see all around and about us evidences of growth and development, particularly along those lines, which more nearly concern municipalities in their progress to higher and better government. We are glad to see that you are surely and steadily reaching to a solution of those different problems which confront every city in its career. Now are we specially glad to see that ere long you will give to those little mites who tread their weary way up and down from day to day a much needed rest. As physicians, we are very kind and considerate by nature, and our hearts have frequently gone out to these little animals in their distress. We are very anxious that you replace these with that swift and subtle agency which will bear us along at a somewhat more rapid rate, thus enabling us to expose our lofty brows to the caresses of the gentle April breezes as we make our journey to and fro from the capitol building to the depot. We are glad to know that in a short time your city will be encircled and traversed by the electric railway, over which shall speed sumptuous cars laden with a happy and contented people. We are delighted to know that you are in the line of progress in sanitary matters. That you are becoming alive to the fact that public hygiene is the solution to the attainment of public health. Many cities have been taught this by sad experience, and it is high time that towns and villages apply this principle in their quest for happiness and prosperity. There is no more powerful a weapon against the onslaught of disease than is the law of cleanliness, hygiene, sanitation. Dirty, filthy streets, stagnant pools, decaying matter and you have typhoid and septic fevers, food for epidemics of whatever nature; clean streets, clean surface everywhere and you have a condition which not only protects you as a city from these diseases and epidemic visitations, but which give you a happy citizenship; every citizen in the best possible condition of health and prosperous in business, because his environment is such as to make him so.

Less for the physician, a lighter pocket for him 'tis true, but we would have you know we are humanitarian above all else. A wise philosopher has said that if the human race would attain perfection it must be through the medical profession.

Fellows of the Mississippi State Medical Association, if this



be true it behooves us to be about our Master's business. We must preach the doctrine of sanitation, health—no sanitation, no health—as we have never preached it before. We must, with strong arm, with unflinching steps, with courage born of deep and abiding connections of the righteousness of our cause, uphold our sanitary boards. Our state has suffered from epidemic disease, sorrow and sadness has come to many of her homes, the black pall of pestilence has been upon us, our citizens, panic stricken, have fled from their homes, saying to the grim destroyer take what we have and give us life.

Out of this has come sadness and sorrow, loss of property; out of this has also come from some quarters censure and criticism of our state board of health, and criticism for what? Does it spring from a righteous desire to point out the weak spots that strength may be given? In many instances I suspect not. I want to say this, that in spite of carping critics, in spite of the jibes and taunts of that class of would-be influential citizens who make it their business to fight every thing, right or wrong, in spite of this I challenge any man to point out wherein, in any way, our state board of health has been derelict in its duty in suppressing epidemic diseases, or has failed to avail itself of the best and most approved methods of fighting pestilence. I speak of a personal knowledge, for I have come in contact with the accredited officials of our board in their management of the yellow fever epidemic of last fall, and I know whereof I speak when I say that the people who suffered most and who lost most and who had to face the pestilence in their very midst are not those who would abolish the only organized force which we have in fighting these epidemics. They have nothing but praise for the board of health, and in the city of Oxford there are three thousand hearts which go out in gratitude to the board of health and its accredited representatives in their midst for their brave and successful fight against the epidemic of last year.

A calamity it was, but a horrible holocaust it would have been but for the prompt, wise, resourceful and energetic movements of capable representatives of the board on the ground. The board needs no defense at my hands. The work it has done and the service it has rendered the people of this state is its own best defender.

We must not forget that we are the conservators of the public health and that directed by our own honest and wise

efforts, and supported by wise public officials, we are a mighty power in shaping the destiny and in making happy and prosperous the citizens of our own great state. In this day of discontent, when everything seems unsettled, in this day of small things, in this day of conflict and turmoil, let us not look through the glass darkly. "We do not take possession of our ideas, but are possessed by them. They master us and force us into the arena, where, like gladiators, we must fight for them." We have only one concern, and that the conservation of this body, and of its creations and the preservation of the public health. It is only through these agencies, protected and supported by an enlightened public sentiment, that we can attain to that high standard of efficiency which has been our aim for all these years. It is our business to educate public sentiment. When the whole people of the state realize that through the medical profession and through a prompt acquiescence in the enforcement of the health laws, alone must come relief from epidemics with their accompanying panic, disaster and loss, then will intelligent effort rule and direct and all these be avoided, but not till then.

## MISSISSIPPI STATE MEDICAL ASSOCIATION.

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By C. KENDRICK, M. D.

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### MR. PRESIDENT AND FELLOWS OF THE ASSOCIATION:

It is not only the custom, but under our constitution and by-laws it is made the duty of the presiding officer to deliver an address on "some subject connected with the interest of the association." The subject selected is the "Mississippi State Medical Association." Perhaps it would be more accurate to call it "suggestions to the association after an experience of more than a quarter of a century." When I look back over the twenty-six years that I have been a member of this body I find so much that has been accomplished that when I say I congratulate you on its success, I mean far more than mere words of empty sound. Almost all the laws relating to public health and the medical profession now in operation in this state originated in this body. To properly appreciate this feature of your work we have but to compare our laws with those of many older.

wealthier and more powerful states. Nearly every form of charlatanism which at one time robbed the sick and the afflicted and in many locations was a menace to the regular profession, has been driven from the state.

When the price of quinine ran up to \$4 per ounce you stood up as one man and in strong and earnest language asked congress to remove the tariff, notwithstanding co-operation representing millions of money flooded the state with literature to prevent such action. You investigated the history of surgical anaesthesia and vindicated the claims of Crawford W. Long.

"Tardy justice at last—but such is life,  
Alas too late oft comes the laurel wreath,  
A Tasso's brow was pale and cold in death,  
Before the long grudged bays trembled above  
The lips that sang of glory and of love."

But this is only a very small part of the work that has been accomplished. To attempt to enumerate all that has been done would require a very long article. This body has grown to its present degree of strength and usefulness through many difficulties and trials. But it has passed through the fiery ordeal and is now the pride and glory of the physicians, and should be of every citizen of the state. Let us hope that it will profit by the experience of the past, never go backward, but continue to grow in number and strength,

"Like to the Pontic sea  
Whose icy current and compulsive course  
Ne'er feels retiring ebb,  
But keeps due on to the Propontic and the Hellespont."

#### MEDICAL LEGISLATION.

One of the most important subjects for us to consider is that of state and national medical legislation. Few of our members take time to consider this subject as they should. Many seem to think we have all the legislation we need, and that there is no danger of losing that already gained. This is a great mistake. There is seldom a session of the legislature that efforts are not made, directly or indirectly, to repeal in whole or in part the act to regulate the practice of medicine. Nothing but the watchful care of our friends in the legislature has preserved this law in its present state of perfection. It is not always an easy matter to pass a bill making the necessary appropriation for the state board of health. At the last session a strong effort was made to

pass a bill requiring physicians to betray the secrets of patients having syphilis. This was a death blow at the sacred confidence that should exist between the physician and the patient. But for the action of this body it is quite probable the legislature of 1890 never would have repealed the \$10 tax on physicians. The friends of the association used this resolution by the association as a powerful weapon in the fight for repeal of the law. But for the efforts of this body the bill creating the Mississippi Department of Public Health never could have been passed. True, this law is imperfect, but it is a long step in the right direction, and future legislatures may perfect it after experience shows what is most needed. It is the very best that could be passed at that time. A strong effort has been made to pass a bill through congress to prevent vivisection in the District of Columbia. The *Cincinnati Times*, among other good things, speaks of it in the following language, which I most heartily endorse: "The same spirit that forced Socrates to drink the deadly hemlock, that compelled Galileo to retract his assertion that the world moved, that made Christopher Columbus a butt of ridicule for many years before he discovered America, that threw every possible obstacle in the way of the great scientist, Harvey, and that made it criminal for physiologists hungering for knowledge to dissect a corpse, is now at work in the United States congress seeking to prevent any form of vivisection. The spirit is prompted by ignorance. It comes from a lot of misguided fanatics of the same kidney as those who insist that vaccination against smallpox is vain, that all bacteriologists are humbugs. It is the plan of these fanatics to pass a bill through the United States congress forbidding vivisection in the District of Columbia, and use this as an entering wedge for further legislation in the various states in the union." If the physicians of Mississippi need any argument to convince them of the wisdom of taking an interest in the legislation relating to the medical profession, these facts and statements should be sufficient. There is no danger of vicious legislation in this state if we stand like a solid phalanx against it, watch every bill before our legislature that affects us, and write to the representatives and senators concerning it. A united profession can do much to prevent it in our national congress.

Lieutenant-Governor Woodruff of New York in his speech before the New York Medical Society said: "The medical pro-



fession should endeavor to draw near the executive and legislator. Much that the profession wants could be easily gained if physicians of the state exercised that tact and energy displayed by politicians." This is true also of our state.

#### PATENT LAWS.

There is a matter of vast importance to the profession and the people in which every medical man and every medical organization should take an interest. I refer to the patent laws of our government. Foreign chemicals and medicines should not be patented under any circumstances, and we should not cease to labor "in season and out of season" until the law is so changed as to require the formula on the label of every patent medicine.

#### DENTISTRY AND PHARMACY.

The professions of dentistry and pharmacy are so closely related to our profession that we necessarily feel a great interest in them. Especially are country doctors interested in them, as they are to a limited extent dentists and druggists. Legislation relating to or affecting these professions necessarily affects us. The legislature of 1894 passed a bill endorsed by the Dental Association which looked to the prevention of the use of certain poisonous drugs in the extraction of teeth by others than physicians and dentists. It also provided that the Dental Association should select the members of the Board of Dental Examiners. The bill was to some extent crude and imperfect, but it was a long step in the right direction and the best that could be passed at that time. The bill did not meet the approval of the governor. If our brothers of the dental profession attempt to pass a bill of that kind at the next session of the legislature I hope the members of this association will do all in their power for its passage. The board of examiners in dentistry, pharmacy and medicine should be selected by the members of those professions.

#### COMMITTEES.

Having served several times on the executive committee I know from experience that frequently it can not keep up with the work before it, and I would suggest that our rules and by-laws be amended so we can elect a committee (say one or two from each congressional district) on ethics; let this committee

investigate all charges against members. I hope we may not often need the services of such committee, but sometimes we may, and the executive committee will be relieved of this duty and can give more attention to the character and standing of applicants for membership and other matters that may come before it. It might facilitate business to have several new committees. It has generally been our custom to take action at once on almost every resolution that is introduced. This is not always wise. A resolution of great importance may be passed when it is not sufficiently understood. For instance, three different sessions of this body asked for the law now on our statutes creating the Mississippi Department of Public Health. But when we came to organize under that law in 1898 very few understood its provisions or had investigated the matter fully. The moral of this is that every resolution of importance that is not perfectly understood by every one should be referred to a standing or special committee, and reported by them after a thorough investigation.

#### PRIZE ESSAYS.

At our meeting at West Point in 1884 the prize essay part of our constitution and by-laws was first adopted. It passed by only a small majority. I opposed it at that time and have seen no reason since to change my opinion. In our efforts to benefit our race and profession we should be inspired by grander, nobler motives than a mere prize of dollars and cents. We need no prizes to encourage "original investigation and research." We are a band of brothers and do not desire to enter into contests of this character. During all these years not a single prize has been awarded. It is a dead letter and should no longer encumber the record.

#### MUSEUM.

There is no reason why we should not have a museum that would do credit to our state and to our organization. Many physicians would donate valuable specimens and relics that would be of great interest to those now living, and perhaps doubly so to generations coming after us. We should begin as soon as possible before all the early members are gone. A committee might be appointed to take the matter under consideration, and report at a future meeting. Then if it is deemed advisable to begin committees should be appointed in different

parts of the state to receive donations. It is very probable that we will have a new capital in the near future, and by beginning in time we might secure a room in the new building until we could make other arrangements: Or, we might secure a room in the Medical College at Vicksburg when organized. The State Dental Association might co-operate with us in this work.

#### FEEs.

In 1874 the initiation fee was raised from \$3 to \$5 and the dues from \$1 to \$2. This was suggested by the president, the lamented Dr. J. M. Taylor. It seemed necessary at that time. In the eyes of many physicians the sum of \$5 looks ridiculously small. But to the young doctor who has gone through college, and paid all expenses necessary to secure a diploma and license, it is a matter of some consideration. We want all to join us who can, especially young physicians. I would suggest a reduction in the initiation fee to \$2; especially should this apply to young physicians during the first year after securing license.

#### BOARD OF HEALTH.

Until the of code 1892 was adopted this association selected all the members of the board of health except two, now it selects five of the twelve. This was a powerful lever in stamping out and keeping out quacks and irregular doctors. In many states the regular profession would give a great deal to have the power we then had, yet strange to say many physicians in this state aided in taking this power out of the hands of the profession. There is nothing now to prevent a governor from appointing a majority of irregular doctors on the state board of health. If the present law is not changed I predict that the time will come when the medical profession will be humiliated by seeing their students go before an examining board composed in fact, of irregular doctors or quacks; and in case of an epidemic of yellow fever instead of an efficient intelligent board as we now have, we may see the affairs relating to the public health of our state managed and controlled by men not even eligible to membership in this association. If there are any who think we should not have power to select all the members of the board of health, perhaps they would be willing for the governor to be required to appoint on the board of health only members of this association.

When the proper time comes I would suggest that an effort be made for this association to select all the members of the board of health. If this fails make an effort for the Mississippi Department of Public Health to select or nominate the seven now appointed by the governor. If this fails try to have the law so changed that the appointments must be made from the members of this body. If any one of these measures is adopted there could then be none but regular physicians on the board.

All county and other health officers who are appointed by the board of health should if possible be members of this body. Not only in this but in other matters we should give our own members the preference.

#### NEW MEMBERS.

We do not do enough work towards securing new members. Every member should regard himself as a committee of one to try to get every regular physician in his county to join us. A little effort in this direction will do much good. Every physician in the state who is eligible should be with us. Very few who have had no experience can realize the difficulties, some members of the legislature have to encounter on account of their acts and votes in the interest of the medical profession. It has time and again been charged in the legislative halls that the law to regulate the practice of medicine was to protect physicians. There never was a greater mistake, and we should strive to teach the people that this law is to protect them rather than us. In many localities it was made a political issue to some extent. In some instance it required a great deal of moral courage to induce a legislator to vote for the bill or against its repeal after it became a law. We should sustain in every way possible those who fight our battles in the legislature whether they be physicians or not. We should be careful how we ask for legislation not absolutely needed. Especially should we be careful at this time how we ask for special laws to enable us to collect fees. It will be very difficult if not impossible to pass a law of this kind, and an effort to pass it in my opinion will endanger some laws we already have. These remarks and suggestions are respectfully submitted to the consideration of the fellows of this association, and if a greater interest in the association or its work is the result, "*Nec ego frustra.*"



## Original Articles.

### Chlorosis.

BY DR. S. ASCHER, HAMBURG, GERMANY.

(Translated.)

Although chlorosis in its typical form, which occurs especially in females at the of puberty, is generally amenable to medical treatment, there are cases in which all our efforts to effect a cure are unattended with successful results. We are inclined in such cases to call to mind the explanation given by Virchow, who assumes that chlorosis frequently depends upon a congenital narrowing of the arteries; yet this explanation is of little aid to the practical physician. If we remember that the action of iron—our panacea in chlorosis—is yet a mooted question, and that doubt still exists as to whether iron is capable of absorption by the stomach or intestines, it is natural that we should welcome preparations which promise to give better results than those in previous use.

It is well known that in the hæmoglobin of the red corpuscles manganese is constantly found in connection with iron. Opinions have always been divided as to the significance of manganese in the blood, as regards the question whether manganese is really a constant constituent of hæmoglobin or an occasional one. We know that the function of the red corpuscles to take up oxygen is chiefly attributable to the presence of iron, but an active part in this direction has also been ascribed to manganese. While in chloride of iron one third of the chlorine is active, this property belongs to a still greater extent to manganese chloride, a combination of chlorine and manganese corresponding of that of chlorine and iron. Iron chloride is a much more stable combination than manganese chloride, which decomposes even at ordinary temperatures and gives off one-half of its chlorine; it is, therefore, quantitatively more active than iron. Manganese as a constituent of the blood exerts a stronger polarizing effect upon the oxygen and gives off the latter more readily than iron.

Manganese is, therefore, a more powerful oxidizing agent than iron, and, absorbed into the body, will exert energetic assimilative action.

John Kugler, in 1838, was the first to recommend the mang-

anese salts in scrofulosis. He made the observation that persons who handled manganese oxide in a chlorine bleachery enjoyed an immunity from diseases of the skin, bones, and glands. In 1844 Hannan found a diminution of manganese in scrofulosis, and to a still greater extent in anaemia and chlorosis. In chlorosis he found that the quantity of iron was sometimes chiefly diminished and sometimes that of manganese. He therefore distinguished chlorosis from lack of iron and manganese.

Although this schematic classification cannot be accepted, other investigators of more recent time have established a connection between chlorosis and a deficiency of the quantity of manganese in the haemoglobin.

In 1852 Petrequin recommended manganese in combination with iron. He maintained that in all cases in which iron is indicated but proves ineffective there is a deficiency of manganese in the blood. Among recent authors Ruhle, of Bonn, has warmly recommended the combination of manganese with iron in the treatment of chlorosis, and lately manganese has been employed with much success for amenorrhoea in young persons between the ages of eighteen and twenty years.

Notwithstanding these high commendations from various sources, manganese was not generally adopted in the treatment of chlorosis, and in cases when iron failed to act resort was had to purely dietetic measures. The reason for this was that no preparation existed in which iron was combined with manganese in a readily absorbable form. Such a preparation, however, is Gude's Pepto-Mangan, and the results obtained from its use by myself and others are exceedingly promising.

Gude's Pepto-Mangan has been tried by me and few colleagues in various diseases with a depreciated condition of the blood, altogether in eighty cases, and in the following I will give a few exact data concerning the observation thus far made by us.

In the simple chlorosis of females during the period of puberty we have employed Gude's Pepto-Mangan in about thirty cases with uniformly good results. The remedy was always well borne, digestive disturbances were never observed, the marked symptoms of headache, vertigo, palpitation of the heart, and loss of appetite were improved within a few weeks. The bodily weight increased by one-half kilogramme (about one pound). Among the histories of cases at hand the following appear especially noteworthy:

Miss Sched, aged 22, suffered from oedema of the legs, general weakness, marked anaemia; menses absent for several years. Prescribed rest, vigorous diet, massage, and Gude's Pepto-Mangan three times daily. After six weeks' treatment oedema disappeared, menses returned, patient felt better, has better color. Four weeks later menses became abundant, although the Pepto-Mangan was no longer employed.

Miss R., aged 28, seamstress, marked anaemia, nervous dyspepsia, fluor albus. Besides massage, rest, etc., Gude's Pepto-Mangan, one teaspoonful thrice daily. After three weeks, fluor disappeared, menstruation more abundant, patient's condition perceptibly improved. The disagreeable backache has ceased, appetite and condition of bowels normal.

Miss Clara F., aged 25, weight 52.5 kilogrammes (about 110 pounds); great disturbance of nutrition and anaemia; had suffered for five years from amenorrhoea, nervous dyspepsia, general neurasthenia, and nervousness; complexion sallow owing to constipation. Gude's Pepto-Mangan administered (altogether 1,1000 gramme, 36 to 37 ounces). Result very favorable: weight increased one-half kilogramme (about one pound) every week, appearance excellent, general condition much improved; constipation relieved by extract, frangula, fluid. During the eighth week menses returned; headache and stomach troubles have disappeared; patient has great hopes of perfect restoration to health.

This preparation also proved very serviceable in cases of anaemia associated with more or less marked scrofulosis. The abscesses of the skin healed, eczema of undoubted scrofulous character disappeared. The following case is characteristic:

Margaret G., aged 12, a weak, anaemic, and scrofulous girl, had suffered repeatedly from tonsillitis, coryza, anorexia, glandular swellings, and had a pale and sickly appearance. Prescribed for a period of six months three baths containing Kreuznach mother-lye thrice weekly, and Gude's Pepto-Mangan one teaspoonful thrice daily. In all 1,1000 gramme (two pounds) of the liquor were used. The girl now looks well, healthy complexion, red cheeks and lips, appetite good, swelling of glands has almost entirely disappeared.

I have further employed the Gude's Pepto-Mangan in that form of anaemia which is found in young women as a complication of uterine trouble or as consequence of profuse loss of blood from repeated abortions or childbirths. The effect was always

uniformly good. The patients, who belonged for the most part to the working class, after three to four weeks' use of the Pepto-Mangan, were able to resume work (although their nutrition could only be slightly improved), and were able to accomplish as much as formerly.

It is well known that during the course of chronic malaria marked anaemia develops, which is extremely obstinate to treatment and frequently defeats all efforts to effect a cure. Even after the attacks of fever have subsided the anaemia quite often persists for a long time, and the patient becomes greatly reduced in health.

In this condition, where, as I have said, other preparations of iron frequently leave us in the lurch, Gude's Pepto-Mangan has rendered us good service. We have had occasion to employ this remedy sixteen times in anaemia, following malaria, and report the following two cases by the way of illustration:

Margaret Sch., aged 26, unmarried, scrofulous tumors of the neck, anaemia following malaria, gastric catarrh; bodily weight 58 kilogrammes (about 122 pounds). Duration of treatment two months; 800 grammes of Pepto-Mangan used with material and continuous improvement. Vomiting and headache have disappeared, appetite good, increase of weight two kilogrammes (four pounds).

Bertha Pr., 10 years, 20.5 kilogrammes (about 43 pounds), marked anaemia after malaria and scarlatina, diphtheria. Five hundred grammes (one pint) of Gude's Pepto-Mangan administered in six weeks. Considerable improvement of the general condition. The patient had so much improved that treatment was discontinued, thinking it no longer necessary. Increase of weight 1.5 kilogrammes (three pounds).

That Gude's Pepto Mangan is also an excellent remedy for children is demonstrated by the above observation, as well as the following one:

Annie and Wille D., twins, 2½ years old. Rickety, pale and unhealthy color of face, appetite poor. Gude's Pepto-Mangan in wine, one teaspoonful thrice daily, altogether 300 grammes (ten ounces) used. The children take it gladly and it is well borne. Appetite has improved.

Finally, it may be mentioned that I have tried the Pepto-Mangan in several cases of pulmonary tuberculosis. Of course,



the effect here was only relative, yet frequently we were able to improve the appetite and effect a slight gain in weight.

In the foregoing remarks I have somewhat in detail given my experience with Gude's Pepto-Mangan, and I have done this because I am convinced that it is worth while to institute further trials with this preparation. The observations thus far made were very encouraging. I will not attempt to define what part manganese plays in the new preparation. At any rate, it appears that, compared with other ferruginous preparations, Gude's Pepto-Mangan has a better and more certain effect, and is characterized by the fact that it does not produce disturbance of the digestive tract. It would be interesting to determine by experimentation that under the use of this remedy the quantity of manganese in the blood is actually increased. Such an experiment would definitely prove that Hannan's theory of chlorosis based upon deficiency of iron and manganese in blood is perfectly correct.—From the *Allgemeine Medizin. Central Zeitung*.

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## Correspondence.

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MACON, Mississippi, April 27th, 1899.

DR. H. M. FOLKES, EDITOR JOURNAL OF THE MISSISSIPPI  
STATE MEDICAL ASSOCIATION:

DEAR SIR—I wish to write a criticism of the plans of proceedings and of work that hold in our State Medical Association. Our membership consists of as fine a body of men as any state can boast. Many first rate papers are read at our annual meetings, yet the profits derivable from these sources are, in great part wanting.

A good essay is read, there is no one who has specially prepared himself to criticise it, or to sum up its merits or demerits. Consequently the discussion is not profitable. If it was, there has been no means for recording it. These valuable papers are published in the transactions, are read by a few members, and then are forgotten.

Not only so, but along during the second or third day of the meeting, some one proposes that a discussion of a paper shall not exceed five minutes. The essayist has probably spent parts

of days for months in getting up his paper. He has indulged in imaginations of a brisk passage at arms between its eulogists and its adverse critics and has prepared himself to reply to assaults made upon it. Thus he has hoped to have a permanent impression made on the membership. Alas for his hopes! Or may be as it was with a grey haired old doctor that I wot of. He wrote his essay as just described, did his work carefully and prayerfully. He hoped that this product of his brain would be as helpful to the membership as its preparation had been to himself. He was sick and could not attend. He sent his bantling to the secretary and asked him to read it or have it read, and hoped for an active and energetic debate upon its merits. But some one got in a hurry and made a motion that the thesis of all members who were absent should be read by title and referred to the publication committee. Yet that old doctor had an assurance from the officials that if he sent in the name of his article by a certain date it should go in the program and be read and discussed. That old fellow's paper may possibly be published in the transactions but its chance ever to be read to an audience or to be criticised, or to effect medical thought or action is well nigh *nil*. In the north and east it is not so. Not only the thesis but the criticisms and the added thoughts are all recorded; its worth or its want of it is made clear. Thus the valuable thoughts and plans are productive of real and permanent good. Enough of fault-finding. Now how are we to amend our plans and procedures?

First we must arrange for time in which to do, and to have done well, what we propose to do. If that necessitates an additional day let us have that day. But much time can be gained by convening early and dismissing late and by sharp, energetic exercise of official power. But the most important thought that I have to suggest is that the chairman of each section shall have delivered to him, at least one month before the meeting, all the thesis that pertain to his section or an epitome or a resume thereof. That it then shall be his duty to prepare himself to lead in the discussions on the papers read. This should be done honestly and thoroughly, with a due admixture of the *suaviter in modo*, with the *fortiter in re*. There should be an assistant chairman for each section whose duty should be to take his chief's place when he is absent and to prepare himself to lead or to assist in the discussions on the papers of his section. The

inevitable result of this plan, if adopted, will be papers of a higher order and merit, prepared after much thought and patient investigation, for the writers will bear in mind that the criticisms will be searching, and the weak points exposed. At the same time they will realize that merit will be appreciated, and demonstrated. They will also realize that they must come fully prepared to defend their views. Voluntary papers should have attention and time, but not to the detriment of the program.

In this, as in all deliberative bodies, there should be no loss of time, the whole mind of the assembly should be concentrated on the discussion, but, at the same, there should be no appearance of haste and no neglect of details. This requires a stern, emphatic, but just presiding affair, backed by subordinates of like character, and all backed by the body of the association. Is this plan feasible? Indeed it is; why not? We have as good talent as any other state. This plan will develop talent, and habits of thought and observation, and effort will develop power of expression and co-ordination of thought.

This plan will necessitate the expense of a stenographer and some other expenses but not enough to embarrass any member.

I long to see the day when the distinguished physician or surgeon of the great city of — will say to his fellows: "Let us go to the meeting of the Mississippi State Medical Association; those fellows think down there; their discipline is perfect; their papers are well considered and well written; their discussions are thorough; they are well up, but if we go there we must be careful, or we will find ourselves criticised caustically," etc.

I long to see the day when the editor of our journal will receive communications commencing "Dear Doctor—Aunt, Dr. A's paper, read at the last meeting, I wish to say that recent study and experience causes me ———. And I have recently had reason to see the wisdom of Dr. B in his thesis of year before last, and Dr. C's position taken two years ago on the subject of ——— is all wrong," etc. Then the face of the editor will shine with happiness. He will have something worth his while to publish. His journal will be sought after and he, with all other thinking physicians, will rejoice in the steady uplifting of professional character, standing and merit and our profession will become what it was meant for—the healer of diseases of the body and of the mind and the potent support of all that is good and noble and desirable. God speed the day!

Respectfully,

H. A. MINOR.

## Editorial.

H. M. FOLKES, M. D., . . . . . BILOXI, MISSISSIPPI,

Editor and Business Manager.

COLLABORATORS.—J. R. TACKETT, M. D., Meridian, Miss.; W. A. Carnes, M. D., Kosciusko, Miss.; H. A. Minor, M. D., Macon, Miss.; H. N. Street, M. D., Gloster, Miss.; H. H. Haralson, M. D., Vicksburg, Miss.; C. L. Horton, M. D., New Orleans, La.; E. M. Holder, M. D., Memphis, Tenn.; W. A. Evans, M. D., Chicago, Ill.

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SEC. 7. Admission Cards may be issued by the officers of the Association with the obligation for the candidate's signature in the center and blank marginal spaces on the left and right margins for the signatures of the three members who recommend, and the three officers who admit the applicant to membership.

The above section was adopted in order to admit persons eligible to membership during vacation. Either of the above named officers will furnish, on application, the necessary card.

### Executive Committee Mississippi Department Public Health, 1898.

W. G. KIGER, M. D., President ..... Brunswick  
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H. CHRISTMAS, M. D. .... Tchula  
GEO. A. TEUNNISON, M. D. .... Monticello  
E. A. ROWAN, M. D. .... Wesson

The *Journal of Tuberculosis* is the latest to our exchange table and from its very inception is destined to occupy a prominent place in medical literature in this country. We, of the south, are accustomed to regard yellow fever as our greatest bugbear of all the infectious diseases, but it is a grave mistake



and one the sooner corrected the better for us. Tuberculosis with it's far-reaching octopus, like self, is to all civilization the greatest evil with which we have to contend. The word evil is used advisedly, for with modern methods it should be as easily and readily controlled as are the other germ diseases. This leads up to my old hobby of the teaching of the natural history of epidemic diseases in the public schools. A proper knowledg of how diseases spread will be worth more to us as a nation in twenty years than all the Phillipines we can conquer in the same lenght of time. So, long life to the *Journal* and may it lead us to a better, fuller knowledge of the great, white plague and how best to eradicate it, or possibly I had better say, control it.

\* \* \*

EDELMANN, in *Havana Medica*, quoted by the *Journal of the American Medical Association*, says that Borrás fever has only recently been recongnized as being true yellow fever. In this the doctor is very much mistaken, if correctly quoted, as this fact was clearly proven by Dr. Chaille so long ago as the 1880 report of the old National Board of Health.

\* \* \*

DRS. NOLTE and McCutcheon of New Orleans have been appointed to fill two of the ever recurring vacancies on the Louisiana State Board of Health. It is sincerely to be hoped that the scent of that same old "nigger in the woodpile" will have been sufficiently overcome to permit these gentlemen to serve out their allotted term.

\* \* \*

DRS. R. W. MITCHELL and W. B. Rogers of Memphis are on a fishing trip to our Biloxi waters. Dr. Mitchell is making his nineteenth consecutive annual trip and Dr. Rogers is in search of rest and recreation after a severs winter's work.

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Contributors to this journal can secure reprints of their articles, in pamphlet form, at very low rates, by addressing The Biloxi Herald, Biloxi, Miss.

## Reports of Societies.

### Proceedings of the Memphis Medical Society—Dr. B. F. Turner, President—Stated Meeting May 2, 1899.

*As appearing in Memphis (Tenn.) Lancet for June.*

Dr. Wm. Krauss demonstrated a "Simple and Practical Process for Estimating Uric Acid." He described Ludwig's Salkowski's, Hopkins' and other methods. These required from six to twelve hours for a result, and are objectionable on account of delay, and the great amount of labor for the small fee usually paid for a urinalysis. He described Cook's centrifugal process, which, though rapid, depends upon the reading of a blue percentage of a very gelatinous precipitate. The urine is treated with sodium carbonate and ammonia, to dissolve any deposited urates, and throw down the phosphates. To the filtrate an ammoniacal silver solution and ammonia are added, which retain the chlorides and cause a precipitate of argentic urate. Xanthic bodies also go down. This is packed down in a centrifuge, and the bulk percentage multiplied by the factor 0.01176, which equals the grams of uric acid in 10 c.c. of urine. The process recommended was Bartley's. It depends upon the same reaction, but the silver is added from a buret to the hot urine, the end-reaction recognized by touching a drop to a drop of weak potassic sulfid solution. Each c.c. of N50. Ag NO<sub>3</sub> plus 0.00762 = per cent. uric acid, if 50 c.c. of urine are taken. Urea is estimated in a Doremus tube and the ratio calculated. One to fifty or less indicates retention. The Bartley process was carried out before the meeting.

Dr. G. G. Buford spoke of the importance of the uric acid diathesis. Haig says it means death, but Bouchard has proven that uric acid can be injected into the veins of animals like water without producing any bad effect. We do not know whether this causes pain in animals, though we know that uric acid affections in man are quite painful. Tests are important to tell of both the presence and absence of uric acid. The relation between the ingestion of nucleins and the excretion of uric acid should be studied. In enuresis in children, when circumcision has failed to relieve, alkaline substances have given marked relief. Especially is this true in the cases which void an acid urine with

a gush. By restricting the nucleins in the diet much can be accomplished, as in the case of a girl who has been freely fed on sweets, etc., and was unable to retain her urine. A diet of cereals has almost entirely relieved her. In the cases in which chloroform and ether are supposed to affect the kidneys, he thinks the process is a disintegration of tissue with liberation of nuclein and formation of uric acid. In acute surgical cases these effect are seldom noticed, but in chronic cases, such as chronic suppuration, etc., the tissue changes have taken place, uric acid has been formed, and the kidneys suffer.

Dr. Edwin Williams asked if uric acid was found to excess in urine with a specific gravity of 1020 or less.

Dr. Frank Jones has noticed the simultaneous appearance of pus and uric acid in the urine.

Dr. Krauss did not think such a condition as absence of urates in the urine existed; a qualitative examination is valueless, as is a quantitative estimation, if the total quantity of urine in twenty-four hours is not known and the ratio to urea not taken into account. He disagreed with authors that sodium salts are contraindicated in the uric acid diathesis. The biurate is only formed when the alkalinity of the blood is diminished. He estimated this by the Engel modification of the Lowy-Zuntz method: A 1 per cent. dilution of the blood is titrated with 1.75 normal tartaric acid, using litmus as an indicator. He believed everybody can get at least approximative values with the Bartley process, and any, druggist can make up the solutions. He thought the salicylates, sodium phosphate and piperazin the best eliminants. Diet is of greatest importance. He does not think nucleinic decomposition is the sole source of urates. The old idea that they represented an insufficient oxidation (urea formation) is erroneous.

Dr. F. D. Smythe presented a "New Operation for Shortening the Scrotum in Varicocele." The usual vertical incision is made, the varicose veins ligated and excised, and the two ligatures used for the purpose tied together. The incision is then drawn wide apart by two retractors inserted at the middle. Sutures are now placed vertically so that the line of incision, after tying, is horizontal; that is, the first suture is passed from the upper to the lower angle of the incision, and the succeeding ones parallel to this. A material shortening of the scrotum is thus produced without removing any part of the scrotum or sac.

Dr. E. M. Holder has seen Dr. Smythe do this operation, and thought it was necessary to place the original incision lower than is ordinarily done, because the skin around the pubes is not loose, and will not yield to traction. He referred to Dr. W. B. Rogers' procedure, which consists in placing a horizontal buried silkworm gut suture in the tissues of the scrotum, and tightening it sufficiently to so constrict the parts as to form a support for the testicle. The suture is left in the scrotum.

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## Public Health.

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Successful candidates before State Board at May meeting: R. W. Harmon, Marion; A. H. McCune, Decatur; R. C. Elmore, Durant; I. A. Shelby, jr., Revive; J. L. Ware, Everett; H. H. Howard, Carthage; S. A. Miller, Canal and Liberty streets, New Orleans; J. P. Wilkins, Oxford; L. W. Rayne, Mt. Olive; J. L. Gunter, Binnsville; J. A. Tabor, Bay St. Louis; J. H. Stone, Tremont; W. R. Pope, Plattsburg; E. H. DeBerry, Hazlehurst; J. S. Sanders, Charleston; W. H. Horton, Pittsboro; J. S. Sharp, Wall Hill; J. W. D. Hicks, Natchez; F. P. Shelby, Shelby; L. L. Minor, Macon; E. M. Sayle, Oakland; A. T. Hill, Blackland; E. C. Pegram, Duncan; T. C. Sexton, Wesson; H. R. Miller, Mound Landing; G. M. Godfrey, Franklin; D. S. Alverson, Vicksburg; J. C. Butler, Harpersville; S. W. Glass, McCaleb; E. G. Martin, Benoit; H. R. Bohn, Biloxi; W. W. Crawford, Magnolia; J. S. Wheeler, Marietta; F. M. Sandifer, Tylertown; E. L. Walker, Rial; D. W. Jones, Jr., Hermanville; D. U. Wadsworth, Mer-Tidiau; J. A. O'Hara, 1833 1st st., New Orleans; J. B. Gage, Grenada; C. E. Burnham, Harpersville; J. H. Rickerstaff, Moss Point; J. I. Purser, Phillip; A. J. Newman, Bowling Green; M. L. Talbot, Cash; J. P. Sherrod, Port Gibson; T. M. Dye, Grenada; L. E. Robinson, Clarksburg; R. F. Nimocks, Newton; T. M. Toler, Be Welcome; J. G. Backstorm, Sumner; W. F. Baylis, Eastabuchie; D. M. Claitor, Kosciusko; V. C. Smith, Vicksburg; J. W. Barksdale, Vaiden; G. T. Tubb, Quincy; H. D. Webb, Clinton; J. B. Stone, Jonestown; J. T. Holloway, Eupora; B. J. Cook, Bovina; R. C. Dent, Shaw; W. E. Montgomery, Ambler; P. B. Williamson, Westville; S. E. Izzard, Foster; J. F. Brewer,



Crockett; C. C. Parnell, Pleasant Grove; J. M. Guthrie, Newton; A. G. Pettey, Union; G. D. Harris, Jr., Columbus; C. L. Green, Brookhaven; R. W. Hall, Wesson; A. C. Harrison, Paynes; R. B. Crisler, Flora; DeWitt F. Morgan, Brooksville; J. W. Allen, Benton; W. A. Berryhill, Euporia; H. H. Austin, Oak Ridge; W. S. Martin, Coosa; E. B. Provine, Coles Creek.

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The state board of health of Delaware has established a laboratory in Newark, Del., at the state college, for the purpose of aiding physicians of the state in the diagnosis of typhoid fever, diphtheria, tuberculosis, hydrophobia, as well as other diseases which can be elucidated by examination of urine, blood, stomach contents, etc. The aim will also be to carry on original investigations with a view of furthering the progress of sanitary science in general, and bacteriology in particular. Professor Chester, the state bacteriologist, has been appointed director, and Dr. A. Robin, bacteriologist and pathologist to the laboratory.

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## Abstracts and Extracts.

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THE TOXÆMIC FACTOR IN DIABETES MELLITUS.—Dr. G. W. McCaskey (*Medicine*, January) thus sums up, in a paper read before the Northwestern Ohio Medical Association, a clinical study of this subject: The following conclusions appear to be warranted: 1. That all cases of persistent glycosuria are cases of diabetes mellitus, of varying grades. 2. That diabetes mellitus is a disease of diverse origin, the unity of the clinical picture being for the most part dependent upon the glycaemia and glycosuria, which are mere incidents, although dominating factors of the disease. 3. That phloridzin diabetes is not essentially different from clinical diabetes, and that it renders plausible the assumption of a chemical factor, either as a primary or as an important secondary cause in the clinical type of the disease. 4. That normal sugar transformation in the blood, the failure of which is responsible for the glycaemia and glycosuria, is the result of a chemical product in the blood, derived in man principally if not exclusively from the pancreas, and thrown directly into the blood from the pancreatic cells, without the in-

tervention of the duct. 5. That the direct chemical antagonism of this chemical substance by another is no more improbable than such antagonism of a toxine by an antitoxine, which Martin has recently established. 6. It is probable on both clinical and experimental grounds that certain chemical poisons, for the most part of gastro-intestinal origin, but possibly also from faulty tissue metabolism, or as a perverted "internal secretion" from glands, not necessarily ductless, either directly or indirectly antagonize, in whole or in part, the sugar-destroying substance in the blood, thus giving rise to glycaemia and glycosuria, and thus either primarily causing or at least exaggerating the clinical phenomena of diabetes mellitus, in a certain group of cases. 7. If further investigations should corroborate the conclusions here provisionally set forth, it would be advisable hereafter to investigate the bacteriology of the stomach and intestines in cases of diabetes mellitus, and if evidences of virulent bacterial, protozoal, or parasitic growth are found, these conditions should be met by suitable treatment, not with the expectation of entirely supplanting dietetic treatment, but as an important auxiliary to the latter, possibly rendering its restrictions less severe, with less resulting impairment of nutrition.—*New York Medical Journal*.

\* \* \*

CHLOROSIS—Give good food, fresh air, exercise and

R.—Tr. nux vom.....	℥ ss
Dil. mur. acid.....	℥ ii
Tr. gent. co.....	℥ i
Aqua q. s.....	℥ iiij

Sig.—Teaspoonful three times a day before meals, also give a teaspoonful of the following after meals. (Always keep the bowels open with aloes): .

R.—Tr. ferri chlor.....	
Glycerine.....	
Aqua.....	aa ̄ i

Sig.—3 i t. i. d.

Should the iron disagree give Gude's Pepto-Mangan in its stead.—*Moore, North Carolina Medical Journal*.

\* \* \*

PREVENTION OF CARCINOMA UTERI.—Prof. A. Dührssen asserts that more women die of cancer of the uterus every year

in Germany than lives were lost during the Franco-Prussian war, reiterating still more forcibly, that women in the climacteric period are exposed to as many chances of dying from cancer of the uterus as a soldier is to be killed during active war. The same proportion exists in other countries, and the fact is well known that it occurs principally among the well-to do, affecting chiefly well-nourished persons in good health. Very few women who have already been under treatment, or women with cancer-phobia die of it, as they apply early to the physician. He advocates as prophylactic measures a solemn warning to every woman to apply to her medical attendant at the slightest discharge or abnormal bleeding during the critical period, especially a discharge stained with blood. Pain is seldom experienced until the later stages. The physician should make a bimanual examination with every assistance from mirror, curette, test excision, etc., and extirpate the uterus at evidence of a neoplasm. He even goes farther and practices as a preventive measure, at the first evidences of a discharge, the removal of the entire membranous lining of the uterus, as Billroth, Thiersch and Waldeyer have established that a cancer only develops from epithelial elements, and the removal of the entire epithelial lining of the uterus will forever protect the organ against cancer. He accomplishes this with vaporization, according to Sneguireff (he has never observed any dangerous consequences), or by incision of the membranous lining through a T-incision into the uterus, drawn out through an incision in the anterior vaginal vault. Still another security is obtained with Schroder's high amputation, which, nowadays, is without danger and still leaves a functioning uterus. As the cancer may spread and invade the surrounding tissues within a week of the first discharge noted (personal observation) and thus become inoperable, not a day should be lost in seeking a physician. He quotes Haggard in conclusion, who claims that women during the climacteric period should be under medical supervision, as a preventive measure second only in importance to vaccination and quarantine.—*Deutsche Med. Woch.*, January 26.—*Journal of the American Medical Association*.

## Medical News and Miscellany.

THE PARIS EXPOSITION.—Paris will soon again be the attraction of the world. Parties are already being made up to visit the Exposition, and it will interest not a few of our readers to know that an American boarding house, or as the French prefer to call it a “pension,” is to be established for the benefit of those who like to stay in a house where straight American is spoken and where, besides, they will have the opportunity of meeting folks from their own side of the Atlantic. It will be conducted by Professor Wisner and his wife, who, though natives of France, have been long resident in New York City, and who are well acquainted with American ways and customs. They have taken a mansion near the Bois de Boulogne, and they propose fitting it up in such a way as to ensure that their guests will have a comfortable home while in the gay capital. Being well known to medical men in New York, and having arranged with a number of them to accommodate them on their visit to Paris, the professor and his wife hope to make their house the American headquarters for physicians. Professor Wisner would be pleased to hear from other prospective visitors before he leaves for Paris, as he intends doing shortly. For the present he may be addressed 605 Madison Avenue, New York City.

Dr. W. W. Ashton, of Alexandria, La., has been appointed inspector of the state board of health and is now stationed in New Orleans to keep an eye on health affairs this coming summer.

UTERO-OVARIAN PAIN.—Prompt relief, unaccompanied by habit or untoward after-effect, is what the up-to-date practitioner desires most in these cases. Pain of any description caused by suppressed or irregular menstruation, will yield to two five grain tablets of Antikamnia. This dose may be repeated in an hour or two, if needed. It is advisable to crush the tablets with a little wine, diluted whisky or toddy.—*Ohio Medical Journal*.

TREATMENT OF CARBUNCLES.—Carbuncles are both painful and dangerous, showing no mean mortality rate. A first consideration in treatment is nourishment which should consist of



liquid and easily assimilable food, stimulants to desired effect etc. Internal medicines formerly consisted of the iodide and sulphide of calcium, but few now rely upon these agents. Iron too has been found a failure. In my hands no one remedy has given such satisfactory results as eethol in teaspoonful doses every two hours. As the patient improves the interval between doses is lengthened to four hours. This seems to act as an antipurulent and corrector of blood dyscrasia. Papine, teaspoonful every hour or two to relieve pain. Flaxseed poultices until carbuncle points, then incision, scraping thoroughly, washing with peroxide of hydrogen and finally dressing with absorbent cotton saturated with eethol. Since using the above method the fifteen cases I have treated have had an average duration of illness of ten days. This far surpasses my records in years gone by.—Milton P. Creel, M. D., Central City, Ky.

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## Publications Received.

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- Pericardial Diseases Illustrated Clinically—Thomas E. Satterthwaite, M. D., New York.
- Corpulence and the Fatty Heart—Thomas E. Satterthwaite, M. D., New York.
- The Pharmacologic Assay of Heart Tonics—E. M. Houghton, M. D., Detroit, Mich.
- A Rapid and Successful Treatment of Chronic Ulcers of the Leg—A. H. Ohmann-Dumesnil, St. Louis, Mo.
- The Progress of Rhino-Laryngology—Wm. Scheppegegrell, A. M., M. D., New Orleans.
- Perichondritis and Necrosis of the Arytenoid Cartilage—Wm. Scheppegegrell, A. M., M. D., New Orleans.
- Suggestions and Criticisms—Orpheus Evarts, M. D., Cincinnati, Ohio.
- Hernia—W. B. DeGarmo, M. D., New York.
- Appendicitis—H. O. Walker, M. D., Detroit, Mich.
- The Serum Treatment of Diphtheria—Wm. Cheatham, M. D., Louisville, Ky.
- Clinical Notes on Nosophen, Etc.—John S. Perkhan, M. D., Chicago, Ill.

## Neurological.

HENRY IZARD, M. D.

The following resolutions and preamble were unanimously adopted by the Lauderdale county medical association in regular session Monday night May 1st 1899:

Whereas, Death has again invaded the ranks of our society, claiming Dr. Henry Izard, one of our best and oldest members; therefore, be it

Resolved, That we will sadly miss at our usual meeting the wise counsels of our departed colleague who was ever ready to add his valuable knowledge of medicine, gained by long experience at the bedside, to the edification of our society.

Resolved, That the medical profession of this city has given up one of its best practitioners, one who was often called to administer to our own families, which he gave at all times so readily and cheerfully.

Resolved, That the city has lost a valuable citizen: the poor a friend indeed.

Resolved, That we tender to the family our heartfelt sympathies and assure them that we unite with them in their grief.

Resolved, That a copy of these resolutions be spread upon our minutes, that a copy be sent to the family and also be published in the city papers and the JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION.

M. J. LOWERY,  
H. T. TATUM,  
T. A. BARBER,  
Committee.

# The Journal

.....of the.....

## Mississippi State Medical Association.

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VOL. III.

JULY, 1899.

No. 4

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### Original Articles.

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#### Depopulation of Towns Infected With Yellow Fever—A Prophylactic Measure and Business Proposition—Time and Method.\*

By H. H. HARALSON, M. D., VICKSBURG, MISS.

The question of depopulation of towns in outbreaks of yellow fever is not a popular one if we are to judge by the expressions of the press. I agree that it is better, sometimes, for people to remain at home and take the consequences of an epidemic than sacrifice their homes, as I am told many do in order to raise money on which to go north. So far as the business of a yellow fever infected town is concerned that is ruined for the time any way, quarantine or no quarantine, depopulation or no depopulation, and the only question that presents itself to the sanitarian under such circumstances is the conservation of lives with a minimum amount of expense to the individuals composing the town and to the public.

There is but one way in which a town can do business when yellow fever is prevailing in it, and that is to conceal the fever. This can be done for a while but, like murder, it will sooner or later come to light and when it does come to light it will be too late for that town to repair the injury it has done to the sur-

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\*Read before the Mississippi State Medical Association, April, 1899.

rounding country or to retrieve its lost reputation. A town or City devoid of honesty and integrity is no better nor worse than an individual without these noble elements of character. Protect the people on the outside of an infected town or city by legitimate quarantine and modern scientific sanitation and they will not undertake to protect themselves with their shot guns. Quarantine is not popular with some, I know, but a close study of the subject confirms me in the opinion that the nearer we approach to absolute non-intercourse with an infected locality the more efficacious it is as a prophylactic measure. I do not think any proposition connected with the subject of quarantine has been more vigorously assailed than the proposition of depopulation. When a town becomes infected it is the duty of the sanitarian to free that town from infection in the shortest possible time, with the least possible loss to life and a minimum amount of expense to the individuals, composing the town and to the public. We have already stated that a town infected with yellow fever cannot do business even if there is no quarantine nor depopulation, because people on the outside will not do business with it. I think I can show that depopulation is the safest, quickest and cheapest way to rid any town of yellow fever with a population of five or six thousands and less. It must be borne in mind that a large majority of the towns of Mississippi have a population even less than two thousand.

I believe the idea of depopulation originated with the marine hospital service and up to the latter part of the epidemic of last year this service was very proud of it. In 1897 it undertook the depopulation of infected towns in the southern portion of this state. At the outbreak of yellow fever in McHenry in 1898 it again advised and urged depopulation, even going so far as to propose to pay the railroad fare of certain parties of that town to points north and beyond infectable territory. This service, at great expense, maintained a detention camp for the sole purpose of depopulating McHenry. During the latter part of the season of 1898, the assaults against the proposition having become so bitter this service receded from the proposition, and I think, in some instances, went so far as to disown its off spring. I believe that depopulation of yellow fever infected towns and infected localities in the larger cities is correct in principle, and is a scientific prophylactic measure and a safe business proposition and no amount of railing at me, nor any number of dogmati-



cal statements can drive me from the proposition. I believe it should be done at the proper time and with method, and when so done will redound to the sanitary good of the people and to the commercial interest of the town. I do not believe the method adopted by the marine hospital service is the correct one, nor have I ever thought so. The method of this service is to send people to a detention camp for ten days, and at the expiration of the ten days they must be released and are forced to leave the camp. This method is impracticable, for the proper people who have not means to go away from home cannot avail themselves of it, and the rich do not need it because they can go north without detention. It does not materially shorten the period of infection in a town, because under the method the depopulation can not be made general and complete. The principle of depopulation is correct and the marine hospital service should be proud to own it, but the method heretofore practiced by that service is wrong and should be corrected. The infection of a town, left to run its course, will require about ninety days. Depopulation followed by rapid and thorough disinfection and fumigation, can completely rid a town of infection in thirty days and thus save many lives and sixty days of business to the town.

The time for depopulation is not when the first case occurs, nor indeed when the first few cases appear if their locations and sources of infection are known and the balance of the community is protected against them. Under these circumstances the disease can be stamped out and the town continue with its business. But when you have six or eight or ten cases of yellow fever in different locations of a town and you are unable to trace the origin of the infection, then nothing short of depopulation will check the spread of the disease. After depopulation is completed a thorough system of sanitation should be inaugurated. Every house and contents of same, to which the least suspicion attaches should be made "clean." I mean sanitarily clean, by fumigation and disinfection. This should be so thorough as to insure absolute safety to the people returning. I could not when available means are at hand for their isolation near their home advise the inhabitants of an infected town to go north. Some will prefer to do so, but this should be discouraged by health officers. Yellow fever occurs at a season of the year when it is almost as pleasant living in tents as in houses. The entire population should go in tents outside the limit of danger. Those

able to support themselves should do so, those unable to support themselves should become public charges. The population should remain in tents outside of town until the sanitation of the town is completed which in no instance with the size of towns under discussion should require a longer period than thirty days. When the sanitation is completed the people can return with safety, but their return should be under sanitary supervision. If the extent of infection warrants it, all textile fabrics moved out of an infected town to camps should be disinfected, and then if any sickness of an infectious character should occur in the camp or camps the sick should be isolated.

On the 18th of last September I had instructions to go to Oxford and assume charge of the town as state health officer, as yellow fever had been declared to exist there. I arrived there on the night of the 19th. On 20th and the 21st I studied the the situation. I was shown cases of fever in almost every section of the town. In some it was impossible to trace the source of infection. I realized that the town was on the verge of an epidemic, I also noted that the type of fever prevailing there was more malignant than I had been seeing at other points. I advised the secretary of the state board of health of the situation and suggested that there was but one way of preventing an epidemic in that town and that was depopulation. He left the management entirely to me.

Oxford is a town of three thousands inhabitants. Quite a number of her people had already gone north. I urged further depopulation, and was seconded in my efforts by the good people of the town and by the entire medical profession there. Some went north and others provided themselves with tents, and with their families went to the country within a few miles of the town. There still remained quite a number who were not able to do either. I made a proposition to the surgeon general of the Marine Hospital Service, which he accepted, and relieved me of an embarrassment which I could not have overcome without his assistance. By this agreement he would furnish tents and equipment and erect same and I would furnish guards, sustenance and assume all responsibility as to the management of the camp. Later he still further greatly aided me in my work by furnishing a camp physician. A camp was established on the railroad seven or eight miles north of Oxford and four hundred and fifty or five hundred negroes sent to it; the camp would

have been as safe one mile away but was located this distance from town on account of convenience to water. The Methodist denomination owned a camp ground four miles east of Oxford. This was secured and forty or fifty whites placed in it. This left us with seventy-seven whites and one hundred and twenty-five negroes in town. I think this should be considered a pretty thorough depopulation—from three thousand to two hundred; but even many of those who remained should have been sent away. Many of the white families who had lately gone north left their homes in charge of their servants and later by letter and wire urged me to let them remain in town. I do not believe they would have made these requests if they had been familiar with, and appreciated the situation; but I granted them by allowing them to remain, which increased the number of cases in town and also increased the risk to the parties owning these homes when they returned. It was about the 1st of October when this work of depopulation was completed. The Marine Hospital Service placed a force of fumigators in town under Passed Assistant Surgeon Cobb, who was to do such work as I might indicate. That this work was thoroughly done by Dr. Cobb is evidenced by the result. Every house in town to which the least suspicion attached, numbering about sixty, with two hundred or more rooms, were fumigated and their contents disinfected. Sixty cases of fever occurred among the whites with twelve deaths. Death rate 20 per cent. Twenty-five cases occurred among the negroes with one death, death rate 4 per cent. Eight cases of fever occurred in the negro camp; no deaths. Three cases in the white camp; no deaths. No case occurred in either camp after five days away from Oxford, showing that all cases that did occur was contracted before leaving town. By the last of October the work of sanitation in town was completed. It had been thorough. Most of the people were back in their homes and at their business by the 1st. or 5th. of November. The schools including the university opened the 15th of November. Not a single case of fever occurred among the people who returned although there was some warm weather after their return. I left Oxford about the first of November and returned a few days later. I found the streets covered with people and wagons from the country and all business resumed. There were five or six hundred bales of cotton on the platform and I am told that a day or two before there were six or seven hundred bales



of cotton brought in and sold by the country people in one day. When I observed such results it occurred to me that a great sanitary work had been done. I have had no reason to change my mind since, and I assert most positively that it was due to depopulation followed by such thorough fumigation and disinfection. In this town there was estimated to be twenty-two hundred whites and eight hundred negroes. If all these people had remained in town during the epidemic, at the same rate of sickness and mortality which occurred among those who did remain there would have been among the white people of that town seventeen hundred and fifteen cases of fever and three hundred and forty three deaths. Many of these deaths would doubtless have been among the business men of the town, thus taking from it more of its life and future prosperity. Besides this, the cost of caring for the sick would have been greatly increased, even beyond the expense of maintaining the camps and the expense incurred by those who went north. The cost of sustaining the negro camp, including preliminary work for tents and transportation of the people from town to camp and return was sixteen hundred and fifty dollars. Most of these negroes would have been public charges had they remained in town. Most of the whites in camp were able to support themselves and the cost of this camp to the public was nominal—about twenty-five dollars.

In this great sanitary work the people of Oxford are deserving of the highest praise, and the medical profession of that town the loftiest encomium. The latter subjected themselves to the criticisms of the world in conforming to the regulations of the health officer in charge, and instead of being censured should be honored for their action.

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### Mild Type of Infectious Diseases, With Especial Reference to Yellow Fever and Small Pox—The Results of Modern Public Hygiene.\*

BY H. A. GANT, M. D., WATER, VALLEY, MISS.

The nineteenth century, crowned as it is with the most wonderful development of all the mechanical sciences and marvellous achievements in material progress in every department of life, as well in the arts of war as in the emoluments of peace,

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\*Read before the Mississippi State Medical Association, April, 1898.



comes to its close with no greater trophies than those laid upon its altar by the medical profession. It celebrates no victories greater or more far reaching in their beneficent results than those won by the science of medicine in its war against disease. Not even electricity, with its almost inconceivable wonders, can dim the lustre of medicine; for Edison himself has not gone deeper into the secrets of nature or revealed laws of greater value to humanity than the bacteriologists have established with that medical searchlight—the microscope. The establishment of the germ theory of diseases made possible not only the immense progress in medicine and surgery whereby they are successfully treated, but made possible also the establishment of hygiene upon a scientific basis whereby they may be prevented. Hygiene, the preservation of health, has been written of since the days of Moses, but as applied to the body politic, constituting public hygiene, or state medicine, assumed no importance until the establishment, by Dr. Farr of England about the middle of this century, of a system of vital statistics, whereby the death rate and the causes of death in one community may be compared to that of another. Many minor health laws had been passed in England, but it was not until 1875 that the public health act of England and Wales was passed, and state medicine in that country may be said to date from its passage. In our own country, the first statutory public health act was in 1866 creating a metropolitan sanitary district and board of health for the city of New York. Prior to our civil war, practically nothing had been done by our federal or state governments to protect the health of communities or to prevent the introduction and spread of infectious or contagious diseases.

Now, the public health ordinances throughout the world are innumerable, and the good that has been accomplished is inestimable; every civilized country has health laws and health officers. Nearly every state in the union, every large city, and even the counties and most of the smaller towns, have their health boards and ordinances. It cannot be denied that countless lives have been saved, and it is stated that the average period of life has been advanced ten years in the last half century. A comparison of the annual reports of the Chicago Health Department for the years 1894 and 1897 giving a table of the population, total reported deaths, and the death rate per 1000 of population of all the cities in the United States of more than 200,000

inhabitants, shows a reduction of mortality for the three years in all except Philadelphia and New Orleans; Chicago reaching the remarkably low rate of 13.46-100 per 1000, said to be the lowest mortality ever recorded so far as known for any city of more than 500,000 inhabitants either in this country or any other. From a study of public health and sanitary reports as well as from personal observation, I am convinced that all the infectious diseases of an epidemic character are much milder in their manifestations than they were 20 years ago. The unusually mild type of yellow fever that prevailed in this country in 1897 and again in 1898 and the present mild type of small pox should be closely studied in order to ascertain if possible, what is modifying these and other infectious diseases. Let us see if we can arrive at the cause. By the type of an epidemic disease, when speaking for a large area of country, is meant the average proportion of deaths to the number of cases. The same disease at the same time, may be exceedingly mild in a large number of places, and malignant in a small number, which of course would give the general characteristics of mildness, and, vice versa. By modern public Hygiene, for the purposes of this article, may be meant not only all measures for the preservation of health and all known means of sanitation, but also improved methods of treatment, for successful treatment of the sick is one of the most restrictive measures, an increased number of deaths invariably increasing the difficulty of controlling the epidemic.

It will be generally admitted that all the infectious diseases are caused by micro-organisms, and that these organisms depend upon the same conditions as other forms of vegetable life—heat, moisture, and food being necessary, and that their food consists of nitrogen, carbon, oxygen, hydrogen, and some inorganic salts, and is found most abundant in decomposing animal and vegetable matter. In order to illustrate this point, I beg leave to quote from the American Text Book of the Theory and Practice of Medicine by Pepper; a part of the special article by Wm. H. Welch on the General Biology of Bacteria, as follows: "Bacteria may fail to grow or develop only feebly or with involution forms, or be otherwise modified in character when their nutritive pabulum is insufficient, or too concentrated, or of improper reaction, or of unsuitable composition. In our artificial cultivations, we endeavor to provide for each bacterial species that nutriment which offers the best conditions for its development; whereas

many bacteria will grow with almost any kind of food offered them; others, such as the nitrifying bacilli and certain pathogenic bacteria, require nutriment of a very particular composition, and of definite reaction. In a broad sense, bacterial species breed true, and transmit the ancestral characters through an indefinite number of generations. But, like other organisms, and apparently in more marked degree than is the case with higher plants and animals, bacteria are susceptible of variation, especially with changed conditions of environment; also as with the higher forms of life, some species are tenacious of their special characters, while others are more susceptible of variation. Most of the variations with which we are familiar, are temporary, and soon disappear after a return to the normal environments, but some become permanent and hereditary even after such return, and thus give origin to new varieties, races, or species. Permanent variations in function occur more frequently and are more easily produced than permanent variations in form. Most, although not all, of the modifications of character which we can produce, are referable to injurious influences, such a prolonged saprophytic cultivation of parasitic bacteria, especially when exposed to light and oxygen, scanty or unfavorable food, high temperature, prejudicial chemical substances, particularly acids and dilute antiseptics; associations with other bacteria or their products, the action of certain animal juices and passage through the bodies of certain animals. To us, the most important functional variations relate to alterations of virulence of pathogenic bacteria. By subjection to various injurious influences, a number of pathogenic bacteria have been made to suffer attenuation or entire loss of their pathogenic power, and in some instances permanent non-virulent varieties have in this way been established. Bacteria have been deprived partly or wholly of their virulence by prolonged cultivation in artificial media; by injurious physical agents as heat, sunlight, dessication, high atmospheric pressure; by antiseptic chemical substances, as carbolic acid, potassium bichromate, trichloride of iodine; by the blood serum of certain animals; by products of certain animal cells especially those in extracts of the thymus glands; by certain bacterial products, for example cadaverin and undetermined ones in sterilized cultures; by mixture with other bacteria, as for instance, anthrax bacillus with the bacillus pyocyaneus where also the controlling factor is doubtless the action of chemi-



cal products; and by inoculation of certain animals. In many cases, if not in all, loss of virulence is to be interpreted as loss of power of producing toxic substances." If a grain of corn is planted in good rich soil under proper conditions of heat and moisture, it produces the same kind of corn year after year, but if planted in impoverished soil, it deteriorates until it fails to develop grain at all, or if planted in good soil it comes up, it may be choked to death if neglected by weeds, thorns or thistles. By cultivation, different varieties of corn may be produced, but they are all corn; so the bacterium of an infectious disease introduced into an insanitary place will produce its kind and retain its vigor and virulence unless antagonized by a different species, as long as the soil remains favorable, but plant it in a clean place where the pabulum is scant, it will either fail to proliferate at all, or will rapidly become so weakened as to produce toxins of a non-virulent character.

Let it be remembered that the difference in time between a crop of corn and crop of bacteria, is as months compared to minutes. To produce an extraordinary good crop of corn, it is necessary to have heat and moisture at proper intervals; in other words, "a good crop year," but there is never a complete failure, no matter how unseasonable the year, if the soil is rich; but if it is poor, there is finally a complete failure of the crop, no matter how favorable the season. A great deal has been said about epidemic waves, and we have been told that some years the climatic conditions are such as to predispose to the spread of epidemics. When epidemic waves are properly studied, they will very likely be found to be coincident with periods of sanitary neglect. At one time in the history of the world, it was believed by some, that the changes of the moon had to do with lunacy and childbirth. The only climatic conditions that have anything to do with the growth of germs are temperature and moisture, and these are the only conditions that have any effect upon the spread of epidemic diseases. It is true extremes of temperature may reduce the resisting power of the individual, and, to a slight extent in this way, increase the fatality, but if the bacteria get scant food from their external environments, they will soon die, and an epidemic be impossible.

The above principles as regards yellow fever, seem to me to be well established, although some eminent authorities claim that filth has nothing to do with the prevalence of this disease,



and that the cleanest towns, or the most sanitary districts in cities, are just as liable to have a malignant type of the disease as the most insanitary. My experience convinces me to the contrary. At Taylors, Mississippi, a very insanitary condition existed last year, where there were 118 cases of yellow fever and 13 deaths. Only ten miles west of this place, in the clean country village of Orrwood, there were 115 cases and 7 deaths. At Water Valley, a town of 5,000 inhabitants, ten miles south of Taylors with an abundant supply of pure water and a splendid system of sewerage, the sanitary condition generally good, there were 13 cases and no deaths. The same may be said of the Agricultural & Mechanical college at Starkville with 9 cases and no deaths, while at Oxford ten miles north of Taylors, a town of about 3,000 inhabitants, with no sewerage except a few private ones, the sanitary condition therefore not being good, although ordinarily one of the healthiest towns in the state, there were 85 cases and 12 deaths. In these places certainly the same climatic conditions existed, and the disease was introduced in many places throughout the state under the same climatic conditions and did not spread; in fact, the instances under our observation and related by others both in this country and abroad, of the disease being introduced into clean towns without being communicated to the well, are too numerous to allow us any longer to doubt the efficiency of sanitation in preventing the development of new cases.

Dr. Chaille of New Orleans in an admirable article published in the New Orleans Medical and Surgical Journal for May 1898, has the following: "An infected vessel arrived in 1861 at a clean city, Swansea, Wales, and many sickened with yellow fever and 15 died. Numerous non-immunes were exposed to the sick and yet the only persons who were attacked were those who visited the infected vessel. In 1865 an infected vessel visited the clean and healthy city of St. Nazaire France, 40 persons had yellow fever, of whom 23 died; many non-immune were exposed to the 40 sick and only one person was attacked who had not either visited the vessel or been in close contact with infected things (fomites) that came directly from the vessel." This one persons, the doctor thinks, really was secretly exposed to the infection.

The experience of Touro Infirmary in New Orleans in 1897, where, as related by Doctor Chaille and others, 105 cases were

admitted of whom 10 died; while there were 20 non-immune students and nurses continuously exposed and about 100 patients sick with other diseases in the infirmary and yet not one of the 120 had the disease, and also the experience at the Isolation Hospital, same year, where 202 cases were treated and there were 45 deaths while 18 non-immunes were exposed to the sick and more than 100 workmen were temporarily exposed to infection by the houses and premises, and yet not one of these 118 persons was attacked by the disease, can be explained in no other way than that by thorough asepsis, the germs were devitalized in those institutions, while in other parts of the city under the same climatic conditions, probably not a block distant, they were particularly active. In Memphis in 1878, there were over 5,000 deaths; in 1879 there over 500. The city was very insanitary, but the following year, a vigorous sanitary reform was inaugurated which resulted in the thorough cleaning of the city and the establishing of the Waring system of sewerage. In 1897, there were a number of cases of yellow fever in Memphis, but no epidemic followed. Again in 1898, it is probable there were one or more cases admitted into the city without serious results.

Last fall during the epidemic at Oxford, Dr. Haralson moved about 350 negroes from the infected parts of the town to a camp six or seven miles distant without the development of a single case in the camp. To what cause other than an improved sanitary condition can these facts attributed? It is a fact that it is almost impossible to infect a tent and that a detention camp is rarely ever extensively infected? It is admitted that there are instances where yellow fever is said to have been introduced into very unclean towns and yet did not spread. This may happen if it be late in the season, and there be not sufficient time for secondary infection or, possibly in some instances, the food may be too concentrated for the pathogenic bacteria or they may be antagonized by a different species.

An occasional exception should not be allowed to disprove the rule that disease does not spread in clean places, or if it does, it is of mild type. In 1878, the sanitary condition of the South generally was bad. Mississippi was certainly not an exception to the rule. Only the year before, a state board of health had been organized, but was not in good working condition when the epidemic commenced. Few, if any of the towns, had sewers or waterworks, and practically no attention had been given to

sanitation. Privies had been permitted to become foul, streets unclean, no disposal of garbage. There were very few physicians who had had experience in handling the disease and the management of it was not so well understood as it is today. The towns whose sanitary conditions were worst, had the highest death rate as a rule, notably Grenada, Holly Springs, Water Valley and Lake. Holly Springs was thought to be exceptionally clean and free from danger on account of its altitude and its citizens threw open their homes to the refugees of other places, and many of them sickened and died. Let no other place ever make a mistake of this kind, but let it be certain its sanitation is perfect before it invites the disease.

Essentially the same argument may be used to show that the phenomenally mild type of smallpox now prevalent throughout the world is due to the modifying influence of improved sanitation, to successive generations of vaccination and inoculations and to isolation of the sick and those exposed to the sick. To rehearse the history of this disease and to attempt to cite instances to prove this position, would be but to consume unnecessarily your time. One has only to read the report of the Royal Vaccination Commission of England of 1896 to be convinced that public hygiene has gained the victory over this disease. In that country where, during the last century it was so fearfully fatal, said commission reports in part as follows: "We have already pointed out that on a priori grounds it is reasonable to think that improved sanitary conditions would tend to diminish the fatality of, and to a corresponding extent the mortality from, smallpox, and there can be no doubt that the period with which we are dealing has been characterized by an improvement of this description. There has been better drainage, a supply of purer water and in other respects more wholesome conditions have prevailed." So strongly convinced were a part of said commission of the efficiency of public hygiene in controlling this disease, that a minority report favoring relaxation in the enforcement of the compulsory vaccination laws was passed by parliament last year.

Think of the land of Jenner relaxing its vigilance in the enforcement of vaccination, the one great boon that has saved millions of lives! A fatal backward step in view of the fact that public hygiene is not yet perfect. It only goes to show how difficult it is to enforce preventive measures when the disease is

mild. When smallpox was killing Englishmen by the thousands they cheerfully submitted to inoculation, but now they object to the slight inconvenience of vaccination.

So in 1878, when from twenty to forty per cent of our people were dying of yellow fever, there was a cheerful acquiescence in every preventive measure, but how different for the last two years.

Herein lies the danger for the future, and the medical profession has a great responsibility to carry, for it depends upon us whether we will educate the people up to the necessity of sanitary restrictions and continue the grand work that has saved so many lives, or yield to the popular clamor and the pressure of commercial interests and neglect the life saving measures that the experience and intelligence of the century has brought us. No sanitary legislation that is not supported by public sentiment can be efficiently enforced, and upon these matters the physicians of the country are the proper educators.

If the sanitarians are equal to the occasion and the people are made to appreciate the value of public hygiene, no civilized country will ever again be ravaged by a widespread malignant epidemic of any disease. More than that, thousands of lives will be saved that are annually lost from typhoid fever, diphtheria, scarlet fever and other diseases that are common to this country. In conclusion, I beg to quote Dr. Osler's remarks on typhoid fever, which are equally as applicable to other diseases. "The responsibility for the widespread prevalence of the disease rests directly upon the wanton carelessness of the people. God's own country with man's own backyard and the devil's own cesspool, expresses the existing conditions. A threefold duty devolves upon the members of our profession: First, to preach cleanliness! cleanliness! cleanliness!: secondly, to give a loyal and willing support to the state health officials, and thirdly, to guard every case of typhoid fever as a center and possible source of further infection."

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### **Quarantine; Unity of the Medical Profession Essential to Its Enforcement.\***

BY ROBERT E. JONES, M. D., CRYSTAL SPRINGS, MISS.

The prevalence of yellow fever in the southern states, the

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\*Read before the Mississippi State Medical Association, April, 1899.



past two summers, makes the subject of quarantine one of very great importance.

Yellow fever being the disease which is so highly infectious and characteristically epidemic, producing such wide-spread alarm when its existence is announced, is the one now mainly to be considered.

It is indeed strange that smallpox is not generally feared in the same degree, when, if the swollen and disfigured face of a case of confluent smallpox is once looked into, it will be deemed a privilege, notwithstanding the protection given by vaccination, to be in the presence of yellow fever rather than of a case of that loathsome disease.

Quarantine is a necessity now, and is likely to be, in some degree, for all time to come. Its importance at present can not be overestimated, because of the great and unusual amount of communication between this country and the islands of Cuba and Porto Rico. The transportation of troops from these islands, the habitat of yellow fever to the United States with baggage packed in a germ-laden atmosphere, constitute the greatest source of danger at present.

Communication by passenger and freight steamers in the commercial intercourse with the West India islands, South and Central America, is a danger that requires the vigilance of health authorities at all times. But for the vigilance of these authorities troops or passengers may land at New York or other ports of the United States on their way from infected sections, to points within the southern states, and not unpack their baggage until they reach such points of destination and there set free from the various culture media, the yellow fever germs into an atmosphere favorable to their rapid propagation.

It is claimed by those who have spent some time on the infected islands that yellow fever rarely exists in the interior, but is confined almost exclusively to the cities and harbors. It is also stated that nearly all of the cases of yellow fever that reach the United States are from the city and harbor of Havana.

I believe it is now considered an established fact that the germ of yellow fever never originates in our own country. It is to be hoped that the extreme long and cold winter through which we have just passed will prove to have destroyed all yellow fever germs that may have been in hiding in the best warmed homes of our southern country. If, therefore, we are fortunate

enough to have had the hibernation of the dreaded germs interfered with, we may feel thankful to Him who has extended the cold waves of the north and west all over our "Sunny South," driving the mercury to zero, even on our gulf coast.

Considering ourselves free from all danger, within our own borders, we should look to the national government, primarily, for protection.

As the disease is only found, originally, in these foul cities and harbors, the marine hospital service should thoroughly destroy or remove the cause which gives rise to this germ.

There is the place where the great battle should be fought; I believe it is the ground on which the victory may be won, and the extermination of yellow fever on the islands, in our possession, effected.

Granting that this cleaning process will require the use of a great amount of money, and a long time in which to accomplish results, is it not a fact that one epidemic will not only cost the people of the south a great sum of money but a great many valuable lives? The loss of life sustained may be to the southern states, alone; but when business is paralyzed in the south, railroad travel and transportation of merchandise is interfered with in the north, east and west, as well as with us.

It is therefore reasonable that, as the United States is in possession, it is its duty to place those islands in a sanitary condition, the expense being borne, at present, by this government, but finally, the islands themselves made to bear the cost.

It will take time to accomplish all of this, but it will some day be done. Notice the result of Col. Wood's effort at Santiago, the short time he has given to the work of cleaning that city and harbor.

While this cleaning process is going on, let the marine hospital service continue the work of inspecting all vessels as they leave and enter those harbors, fumigating such as need fumigation, inspecting their passengers, baggage and cargoes. Then again at the ports of the United States, detaining isolating, and fumigating as may be found necessary.

If all of these details be rigidly enforced, even at this, the most dangerous time, the disease will not be likely to reach our shore.

I do not think it will do to give ourselves over entirely to national quarantine, and believe that we should continue our

boards of health. The marine hospital service can be called on when its assistance is needed. It has rendered us prompt and efficient aid for the past two seasons, for which we were and are now, very grateful. While the national government is engaged in the work of destroying the germs in the beds of their formation, let all the boards of health continue their labors with great energy and vigilance, as heretofore, with a hope that some day, in the not far distant future, their existence will be required only in the work of general hygienic conditions of the country, for other purposes than that of keeping out yellow fever, as far as the health of the islands is concerned.

It is claimed, by good authority, that with a proper system of drainage, so as to place all points in a thorough sanitary condition, in case yellow fever reaches our shore, it will not find lodgement, or an atmosphere in which to propagate itself. We, as yet have not satisfactory evidence that science has sufficiently informed itself, as to the condition of the atmosphere, unfavorable to the propagation of the germs of yellow fever, as to be able to artificially place the atmosphere of a city or neighborhood, in a condition to cause the death of germs, liberated by the body of a person so infected, to limit its infectiousness, or to attenuate its poison.

There are some conditions of the atmosphere unfavorable to its propagation and spread, but no one knows what those conditions are.

The atmosphere of Atlanta, Louisville, and some other places, south of the Ohio river, seems to give immunity from the disease.

There seems, latterly, to be no danger of its spread anywhere north of the Ohio river, although the climatic conditions are the same there, at that season of the year, as in the south.

According to newspaper reports, Covington, La., for the past two years, has been free from the disease, notwithstanding its proximity to the city of New Orleans, and then being no restriction upon intercourse between the two places; hotels even inviting citizens of infected sections to come.

My experience is so limited that I do not feel that I have a claim to an opinion, but from my observation of the disease during the epidemic of 1878, in the vicinity of Crystal Spring; sanitation has no part in lessening the degree of infectiousness, or in the production of mild cases of the disease when it is once intro-

duced, nor does a bad condition of surroundings cause it to be more infectious and fatal. The disease in this vicinity and in the vicinity of Dry Grove in 1878, was very infectious and very fatal. The rate of mortality was as great on isolated rocky hilltops as it was near a recently drained and filthy pond which was at first thought to have been the cause of the first case in that neighborhood, and which fact gave the name of "pond fever" to the disease. Its source was afterward traced to Vicksburg, and the pond seemed to have had no part in its production, nor in the rate of mortality. I would not have you believe that I place a low estimate on drainage and sanitation anywhere, but those means will not prevent the propagation of the germs of yellow fever when they are once introduced. I recognize the fact, however, that there is strong evidence that the disease can be confined to a room, by the destruction of its germs, before they leave the bedding and clothing of the patient.

I believe, not only that it can be done, but that it has been done at Touro Infirmary and other places in New Orleans.

Now we will consider the question as to what shall be done in case yellow fever reaches the shore at some point in the United States.

I would say that the Caffery bill, with the Williams amendment is good. I cannot perceive that we would want anything better than the rigid enforcement of the Atlanta rules, with the amendment adopted at a meeting of health authorities in New Orleans, on Feb., 9th of this year.

I believe under that system of quarantine, faithfully carried out, the prompt report of first cases, and the unrestricted admission of inspectors from one state into another; the business of the country can be carried on without interruption, and without the widespread panic that is usually occasioned by the report of yellow fever. The essential, however, Mr. President and gentlemen, to the proper enforcements of any plan, is the unity of the medical profession. It is though unity and harmony, with proper respect for, and support of health authorities, that we may be able to gain the confidence of the laity, without which no plan can be successfully enforced, and the shot-gun is the king to which even the nation must bow in obedience.

The state board of health should endeavor to instruct the citizens of the state, as to the manner in which the infection of yellow fever is conveyed, and as to the rules or plan to be en-



forced in case of an outbreak of the disease. It should inform them, by a presentation of statistics, what protection vaccination affords against smallpox, and that by use of glycerinated or aseptic virus, it is a safe means, and thereby popularize the practice of vaccination.

This, it appears to me, can all be done by addressing a circular letter to every physician in the state, setting forth, concisely, the rules or plans to be used, that even he who may not be familiar with them, may not only become so himself, but that he may be able, and be induced by this circular letter, to inform the people of his neighborhood. By this means he will also feel that he has a part in the work that is being done and will be brought in harmony with the authorities.

Harsh criticisms of our state board of health have been indulged in. They have been indulged in by all classes, complaining of the plans, and the manner in which they were being carried out.

They were charged with having been influenced by the state's appropriation for quarantine purposes.

It was stated that if boards of health and experts were dispensed with, yellow fever would not be found anywhere in this country.

I regret to say that these and other charges are said to have been made by some of our profession, when they should have repelled all such vile attacks, and imputations, made upon as honorable, efficient, and conscientious set of men as ever composed a board of health. They should have the endorsement and praise of every physician in the state, for their faithful and earnest efforts to protect the citizens of the state from infectious and contagious diseases.

Physicians should not diagnose from a distance, disputing the diagnosis of one skilled in the profession, who is at the bedside of the sick. Those unaccustomed to seeing these infectious and contagious diseases are necessarily unskilled and should not contend, even at the bedside, with those accustomed to the diagnosis and treatment of such cases.

By these dissensions we are losing professional dignity, and therefore the respect of the people with whom we labor and whom we serve. Let us overcome all petty spites and jealousies, let us maintain a high order of ethics in our dealings with each other; above everything else let each of us do all that is in his

power to promote professional unity; unity of purpose, unity of action, professional dignity, and brotherly love.

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### **A Case of Compound Comminuted Fracture of Ulna and Radius With Suture of Two Flexor Tendons.**

BY P. L. BELLINGER, M. D., WATERPROOF, LA.

January 13th, 1899.—Tom Nelson, colored, age about 37; while attempting to tighten a bolt in a gin stand while in motion was caught by shirt sleeve and an arm pulled down between two cogs crushing the radius and ulna, with much laceration of skin and tendons. First saw patient about three hours after injury; little blood was lost on account of the contusion and mashing, fingers were worn, no injury to radial artery. I first removed several small fragments of bone and trimmed away the ragged pieces of flesh, found two flexor tendons severed, brought the two ends of each together and with catgut suture fastened them; I then washed the wound, applied an antiseptic dressing and splint of wood, placing the hand in a position midway between pronation and supination thinking that would be the most advantageous in case of loss of the above motion. Three days later patient called at office to be dressed he having come seven miles on horseback without any trouble; on removal of dressing the wound appeared healthy, but raw and ragged; a hole extending from side to side, covered on the dorsal surface by the integument, was filled with small pieces of slough and fragments of bone, which, after removal, appeared in good shape; hole packed well with antiseptic gauze and splint again applied.

A weekly dressing like the above continued for six weeks, when the radius had sufficiently united to permit the removal of splint, but still the hole persisted and continued to discharge small pieces of bone and some pus, but a weekly dressing with peroxide and iodoform, with continual packing with gauze, soon brought it to a good healthy granulating condition, after which it healed kindly in a short while. Some deformity remains as it was impossible to get those shattered ends in absolute position, but by forcing them a little at each dressing they were made to assume a better position than they would have done had they been left to the first dressing.

The arm now represents one in a position midway between

pronation and supination, with only slight movement at wrist joint, but with perfect use of fingers and thumbs, excepting some stiffness from the long extension in splint; patient can plow, hoe and use hand and arm to a good advantage. When first seen amputation was thought a certainty, but the escape of the artery gave me good hope to save a hand for a working man. Patient is now well and can do almost as much hard work as before injury.

This case has taught me a very valuable lesson, never to amputate when hope of possible recovery is even faint. The case lasted from January 13th to April 4th, but I feel fully repaid for my trouble.

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Contributors to this journal can secure reprints of their articles, in pamphlet form, at very low rates, by addressing The Biloxi Herald, Biloxi, Miss.

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TRANSMISSION OF CONTAGIOUS DISEASES BY INSECTS.—P. R. Joly (*These de Bordeaux*), in a monograph on this subject, quotes instances of malignant pustule, Egyptian ophthalmia and Delhi boil conveyed by flies. He has also found that the legs of flies may be covered by staphylococci and many other forms of bacteria. Tubercle is particularly liable to be disseminated by flies. They come in contact with sputa and other media, whereby the tubercle bacilli discharged from the body of the patient becomes ingested, and then alight on food and deposit the tubercle bacilli, and thus easily contaminate milk, meat and other substances. The author quotes Yersin as having noticed that the bodies of dead flies collected in his laboratory often contained numbers of the plague bacillus. The influence of various insects, more particularly the mosquitoes, in carrying the filaria sanguinis is well known. The mosquito has also been suspected as the agent in the conveyance of malaria.—*Medical Review of Reviews*, October.—*Journal of the American Medical Association*.

## Editorial.

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H. M. FOLKES, M. D., . . . . . BILOXI, MISSISSIPPI,

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The above section was adopted in order to admit persons eligible to membership during vacation. Either of the above named officers will furnish, on application, the necessary card.

### Executive Committee Mississippi Department Public Health, 1899.

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In this day and generation of exactness in everything in life, it is a matter of surprise why no steps have been sooner taken looking to the standardization of the various galenical preparations of the pharmacopoeia. Under the able lead of several of the big manufacturing houses a wholesome effort is being put



forth towards this end and gives bright promise of being an unqualified success. With a careful and systematic alignment of the drugs we now possess and assurances that we may rely upon them, will have a tendency to stop the deluge of chemicals which has well nigh driven the pharmacopoeia out of the field. One's brain actually reels in trying to keep up with the various names of preparations "made in Germany" whose sole merit lies in an endorsement of some little privat docent, to which is added a name that requires six or seven dashes to properly fill out and the whole thing might do just as well under the name of acetanilid for instance. Let us have simplicity and accuracy.

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WITH all the power and the force of right do we endorse the action of President Souchon of the Louisiana State Board of Health in announcing the presence of a case of yellow fever in New Orleans on May 26th last. As strongly as we condemned his official actions in 1898, just so strongly do we commend this official action of 1899. Under any and all circumstances; at all times and places there is always only one thing ever to be done and that is what is right. President Souchon in this instance has done it. By this course New Orleans has rehabilitated herself in the eyes of sanitarians the country and world over, and has done more to demonstrate the old adage that "honesty is the best policy" than any other single effort in this direction for some time past. She has not only taken a correct stand, but has made the best strategic move that could possibly have been played by her health officials. The force of this last remark will become apparent in event of an other case of fever for the responsibility of its discovery has been entirely taken from the shoulders of the Louisiana officials and assumed by the health officials from neighboring states who made an investigation of the health status of New Orleans and issued a pronunciamiento as to its freedom from infection. Really I don't believe there is any yellow fever in New Orleans now, and if it were not for the high professional attainments of the gentlemen who acted as experts on the Grillo case, I would have every reason to doubt the correctness of the diagnosis, especially is this true from the clinical and pathological reports of the case. To my mind every phase of the findings could have been fully accounted for by what she unquestionably did have—malaria and tuberculosis. But in yel-

low fever it must be remembered that there are facial and other characteristics which go far towards making a correct diagnosis and those gentlemen who pronounced on the case had the advantage of seeing her both alive and dead and are thus in a position to speak *ex cathedra*. President Souchon we congratulate you on finally arriving at the level of the Mississippi State Board of Health.

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THERE seems to be something inherent in the New Orleans atmosphere which has a tendency to make one hide its head and imagine vain things. Just as soon as President Souchon did what an honest man ought to do, some of those contemptible newspapers assailed him for trying to ruin the town. It was just in line with the eternal fitness of things when Dr. Blunt—a good name for a good man—came right out in plain English and told why he had been so prompt in putting on a quarantine against New Orleans—why, because they had lied in 1898 and he saw no reason why they should tell the truth in 1899. This should be an object lesson for all time and makes the record of Joseph Holt stand out more clearly at each reading. Holt was right, eternally right. And they will all have to follow his example.

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THE marine hospital service is soon to hold an examination in New York for the grade of assistant surgeon and there will doubtless be numerous applicants. It seems to us that in view of the fact that so many of the service men are expected to do work in Cuba and other tropical places that it would be an advantage to the service to have a few acclimated southerners try to get in. Of course they could go to New York or Chicago or Detroit if they were very anxious to make the effort, but there are possibly some whose practices or whose finances preclude a long and expensive and possibly fruitless trip to one of the above places. So an occasional examination in New Orleans would give some of them a chance. This service is going to have charge of national health affairs before many years have passed away and the broader its men are, why naturally the better results they will have, so to attain this end why bring in blood from all parts of our common country.

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UNDER head of "News of the Week" the *Medical Record*,

June 10th, says that "yellow fever has appeared in the south in two places." Now unless this is an imperialistic utterance and includes Mexico and Cuba we are at a loss to know where our esteemed and usually well-informed contemporary has discovered the disease. Very likely before this goes to press, the error will have been corrected.

\* \* \*

HOWEVER, while we are on this strain it might be well to sound a word of warning in addition to what the Marine Hospital Service has again and again called attention—danger from Mexico and Cuba in a fever way. Inspector Brunner has repeatedly called attention to violations of regulations on the part of army officers at Havana, this is one; the other is Mexico and the quick and comparatively unhampered transportation facilities with that country. Fever of a very virulent type is raging in Vera Cruz and it behooves officials along the border to be on the alert constantly.

\* \* \*

THE American Medical Association had one of the most successful meetings in the history of the organization in Columbus on June 6th, 7th and 8th. Large attendance. Many splendid papers. Large accession of membership. Making editor of the *Journal* ex-officio secretary of the association. Addresses from Surgeon-General Sternberg and other distinguished gentlemen were among the notable features of this year's meeting. The address of President Matthews was the best of its kind ever read at an association meeting, being full of good, sound sense as to the success of the association. Steps looking to resumption of publication of the *Index Medicus* were inaugurated and it is to be hoped will prove successful. The profession could not afford to lose this valuable publication. The new president, Dr. Keen, is too well known to require an introduction from a provincial journal.

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THIS is an age of great affairs and in no particular is this more apparent than in the interest taken in congresses for the discussion of momentous public questions; for instance: the one on leprosy, the one on syphilis, the one recently held in Berlin on tuberculosis, and in a short while we may look for one on cancer; at present, too, there is being held the great peace con-

gress at the Hague, which, while it will probably result in nothing more than friendly intercourse among the delegates, still it has a civilizing influence as must all such meetings, be they held for what purpose soever. The trend of modern society is toward aggregations of brain, capital, enterprise, endeavor, etc., and at these meetings new ideas are advanced and the seed from them is seen in after-action at the home countries of those receiving them. So success to congresses and let us have a sure enough big one in Paris to discuss topics medical in 1900.

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## Abstracts and Extracts.

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POTASSIC PERMANGANATE IN LUPUS.—Kaczanowski has cured thirty-four cases by dusting the surface with two to five milligrams of potassium permanganate, after removing the crusts with vaselin and warm, soapy water. One application proves sufficient; the scab falls in fifteen days and the patch heals. A nitrate of silver salve hastens the cicatrization. The application of the permanganate is painful, but bearable, and no worse than other caustic remedies.—*Semaine Med.*, October 19th.

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THE RABIIETIC BACILLUS.—Foll, Rivolta and Spinelli claimed to have detected a bacillus the specific character of which was made highly probable by Sanfelice, who, employing a special staining process, demonstrated its presence in large numbers in the spinal cord of a boy who had died from hydrophobia. Memmo of Rome confirmed the observation of Sanfelice and proved the virulent character of the micro-organism, which he detected in several cases of rabies, but quite recently he has succeeded in cultivating it in artificial media, and in reproducing by inoculations with these cultures the disease with its distinctive characters, in dogs, rodents and birds respectively. These experiments and observations, which fulfilling the most stringent demands of bacteriologic criticism, leave no room for doubt, are described in the *Centralblatt für Bakteriologie*. He found the microbe in the cerebro-spinal fluid and the substance of the brain and spinal cord, in the saliva and parotid gland, and in the aqueous humor of four dogs dying from the natural disease, and



of rabbits, guinea pigs and pigeons, in which it had been produced by inoculation. It grew better in fluid than in solid media, the best being bouillon with glucose slightly acidulated with tartaric acid. The growth did not become manifest under a week, and was easily arrested by "air infection," as through the access of dust from the laboratory. Inoculated with cultures of the fourth generation, purified by successive plate cultures, guinea pigs and rabbits developed symptoms of paralysis of the hind limbs, etc., after from eleven to twenty days, and died from the paralytic form of the disease. With dogs the inoculation was prolonged to from thirty to sixty days, when they were attacked with all the symptoms of typic natural rabies. Though Memmo does not suggest the application of his discovery to the prophylaxis of hydrophobia it is not impossible that artificial cultures may be found capable of definite attenuation so as ultimately to simplify the methods adopted by Pasteur.—*Journal of the American Medical Association.*

\* \* \*

ABSTRACT OF A FEW PRACTICAL POINTS IN THE TREATMENT OF POSTERIOR URETHRITIS.—The author stated that the greatest advance in the treatment of gonorrhea had been achieved by the school of Breslau, through the studies of Albert Neisser. The principle rests on the base of destroying the gonococcus as quickly as possible. The often repeated injections, or, better, the irrigations of the urethra, have been employed so as to obtain this result. He mentioned the irrigations first applied by Halsted, in the Roosevelt Hospital, with solutions of bichloride of mercury in strength from 1 to 100,000, to 1 to 10,000. From these irrigations he has been rather disappointed, and, although the patients did not complain of any discomfort during the act of irrigating, they were seized afterward by pain, vesical tenesmus increased inflammatory symptoms, and in three cases epididymitis soon resulted, so that he has abandoned this method.

He pointed out as the most important point for the treatment of the posterior urethra, to reach the whole surface of this region. The ordinary syringe used by the patients does not carry the fluid further than the bulb, and the ordinary injection, if good for an anterior urethritis, is of no benefit for the posterior. The compressor urethra muscle, with its contraction, pre-

vents the introduction of any fluid into the posterior urethra, and for this reason Ultzmann advised a method of irrigation with dilute solutions by means of a short catheter. He, however, had already spoken of the possibility of forcing a fluid into the bladder along the urethra without the use of a catheter, by overcoming the contraction of the cut-off muscle.

The author shows the origin of the irrigating method of Janet, from the possibility of overcoming the contraction of this muscle. He considers the Janet's method another progress in the treatment of gonorrhea. The fluid used in the Janet irrigator is a permanganate of potassium solution at a different strength, from 1 to 5,000, to 1 to 1,000. He refers to several authors who consider the Janet method not only very beneficial, but as an abortive means for this disease.

He dwells on the description of the Janet apparatus, and in the way of applying it in order not to produce much distention of the urethra, which sometimes is painful and uncomfortable. For this reason he recommends, at the first application, not to close too tightly the meatus of the urethra, letting some of the fluid flow back, and close tightly the meatus when the contraction of the muscle is overpowered, and the fluid runs back into the bladder.

For the irrigations of the posterior urethra, the author prefers to irrigate it through a recurrent catheter, avoiding the filling up of the bladder with the fluid, and the distention of the anterior urethra. He has presented a catheter of his own design, made by Max Wocher & Co. of Cincinnati. It consists of a double catheter, having the Benique curve; one is superior, and ends in a bulb perforated with holes for more than two inches in its length; the inferior catheter begins with one groove posterior and two lateral, just at the beginning of the curve, and at the maximum of the curve the grooves end in three holes, which receive the fluid from the posterior urethra and carry it away. By this means he contends that the fluid washes the posterior urethra thoroughly, without filling the bladder, and is then taken by the recurrent branch of the catheter at the place where the compressor urethrae forms the boundary between the anterior and posterior urethra.

This catheter is used letting the patient stand up in erect position, the superior branch is attached to the nozzle of the Janet's apparatus through a rubber tube, and in this way the

posterior urethra is irrigated for five to ten minutes. The fluid is a solution of permanganate of potassium freshly prepared, which he considers as one of the best antigonorrheal remedies on account of its highly oxidizing power.

He has found the irrigations very soothing for the patient, and they never cause irritation or unpleasant feeling.

In subacute cases, after the irrigation of the urethra with the permanganate solution, he injects through the same catheter a solution of Protargol from 1 to 400, to 1 to 100.

In inveterate cases associated with infiltration of the submucous tissues, he recommends the introduction of a fenestrated sound, with a salve twenty-five per cent of ichthyol in vaseline.

He speaks on the antigonorrheal property of the Protargol, and on the reducent action of the ichthyol on the infiltrated tissues.

He adds statistics of sixty cases treated with this one, and had, where he could, obtained recovery from two to four weeks.

He points out the fact that under this treatment no complications occurred, and in some cases, where the patient suffered with relapsing epididymitis, the epididymitis was greatly benefited by the irrigations in the posterior urethra.

Relapses occur in the proportion of 20 per cent; the most are caused by indiscretions.

He spoke of the use of the balsams, which he considers to be relegated to the times of the past. He does not deny a certain benefit from the administration of the copaiba, and of the sandalwood on the catarrhal condition of the mucous membrane of the urethra, but this benefit is accompanied with a great many inconveniences. They have no action on the gonococci, which vegetate in the urine containing balsams. So that the only benefit from the balsams is to render the urine aseptic, but they have no antibacterial property.

He concludes, showing his purpose to give to the general practitioner an easy and handy method to treat posterior urethritis, in order to avoid late troublesome consequences.

He recapitulates in brief the principles of the treatment of posterior urethritis:

1. Irrigations with the Janet method in a recent case of gonorrhea, will, in many cases, prevent posterior urethritis.

- 2.—Irrigations with the recurrent catheter with permanganate of potassium, followed by injections of protargol, will

cure in a relatively short time a case of subacute posterior urethritis without complications.

3.—When chronic posterior urethritis, lasting for a long time, has caused infiltration of the submucous tissues, then the application of a sound with ichthyol salve gives the desired results.—Read by A. Rivoqli, Cincinnati, Ohio, before the Mississippi Valley Medical Association in Nashville.—*Hot Springs Medical Journal*.

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PRELIMINARY REPORT ON THE TUBERCULOSIS CONGRESS.  
—The congress was held in Berlin from May 24th to May 27th, in the Reichstag building, and the opening session took place in the presence of the emperor and other high German officials. The most prominent German physicians, hygienists and bacteriologists were present, as well as representatives of the leading medical men from England, France, Russia, Italy, Denmark, Austria, Japan, Spain, etc.

The papers presented by the most prominent men were very thorough and were complete reviews of our present knowledge of tuberculosis, both from the scientific and the practical standpoints. The special object for which the congress was called—namely, the purpose of arousing interest in the erection of sanatoria for the tuberculous poor, especially the working classes—will, it is hoped, be greatly advanced. According to the present German laws, each laborer and each employer of a laborer is required to pay a very small tax, which is subsequently utilized in taking care of the tuberculous poor. In this way quite a large fund has been secured, and at the present time there are fifty sanatoria in the German Empire in which the poorer and laboring classes can be treated; and a double purpose is thus, moreover, served—namely, the improvement of the health of the individuals and at the same time their education in sanitary matters.

While there may not be any direct practical results from this congress, there will be many indirect ones.

The papers presented by two well-known bacteriologists upon the ways in which tuberculosis is contracted, especially from the dust, were very complete and satisfactory. While a number of papers upon different methods of treatment were read, it can be said that as yet no method has been presented which has given better results than those methods which are



used in our own sanatoria, or better results than those secured in many sanatoria where no special method of medical treatment is followed. There were over 2,000 members of the congress and over 200 official delegates from the various states of the German Empire and the countries before mentioned.

One of the most important things in checking the spread of tuberculosis in all countries is to educate the people thoroughly in regard to the different ways in which tuberculosis may be contracted and the great danger of associating with tuberculous individuals. In other words, the people generally must be thoroughly educated in hygienic matters. Congresses of the same character as the one just held in Berlin help a great deal in this general education and in exciting interest, and are therefore productive of great good. Similar movements which have been started in America should be encouraged. When the officials and prominent people of a government take an active interest in a congress of this sort, as has been done in Germany by the emperor and empress, more general interest, and consequently more good, naturally results. The official delegates from the United States were cordially received and entertained with the utmost courtesy. Several very valuable monographs were presented to the congress, one especially upon German sanatoria by Dr. Panwitz, general secretary of this congress, which are well worth careful examination. Dr. Panwitz will be very glad to send copies of his monograph as well as other similar papers to physicians who are especially interested in the erection and equipment of sanatoria for consumptives. A letter addressed to the Central Bureau of the Tuberculosis Congress, Wilhelmsplatz 2, Berlin, will receive prompt attention.—E. A. Von Schweinitz, M. D., Delegate for the United States to Tuberculosis Congress.—*New York Medical Journal*.

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## Medical News and Miscellany.

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Officers of the American Medical Association for 1899-1900:

President—W. W. Keen, Philadelphia.

First Vice-President—Chas. A. Wheaton, St. Paul.

Second Vice-President—E. D. Ferguson, Troy, N. Y.

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Librarian—Geo. W. Webster, Chicago.

Board of Trustees—E. E. Montgomery, H. L. E. Johnson and C. A. L. Reed, re-elected.

The American Medical Editor's Association elected officers as follows:

President—Dr. I. N. Love, St. Louis, Mo.

Vice-President—Dr. J. E. Brown, Columbus, Ohio.

Secretary—Dr. Dillon Brown, New York.

Treasurer—Dr. Alex Stone, St. Paul, Minn.

Dr. Osler has resigned as dean of Johns-Hopkins.

Dr. D. Bryson Delavan of New York was recently married to Miss Rumsey of St. Louis.

The able and affable editor of the *New Orleans Medical and Surgical Journal* has embarked upon the sea of matrimony since our last issue. May his voyage thereon be replete with health, happiness and comfort—life's ultimates.

The practitioner naturally seeks anything that will enhance the physiological action of a drug, render it more readily assimilable or less disturbing; and is puzzled at times to find a medium which will enable him to get the very best results frequently demanded by the conditions. Drugs that cause gastric irritability—like the Salicylates—must often be abandoned (though absolutely indicated and requiring to be “pushed”) because of the adverse effects set up. So, too, with turpentine, how difficult to emulsify and render it non-irritating. The bromide or iodide of potash, especially with children, has to be abandoned at times because of the nausea and vomiting so frequently experienced. What the practitioner may not know and what we want him to know is, he has at command perfect vehicle for a wide range of drugs that will permit a tolerance not to be found with other

menstrum, and one that will also form many desirable combinations—the Phillips' Milk of Magnesia. The range of usefulness of this hydrate antacid (locally and systematically) is as broad as the acid conditions calling for its employment. It is a particularly advantageous adjunct in the administration of the drugs named above. In the gouty rheumatic diatheses due to uric, lactic or lithic acidity, it is valuable, while in the intestinal indigestion of infants attended with flatulence, it serves admirably, alone, or in combination with some of the carminatives. The assertion can be made positively that it produces no concretions, as with the calcined, or carbonic acid as from the carbonate form. We can emphatically endorse and commend this preparation to our professional friends.

A "SYMPATHETIC HEALER" IN THE PENITENTIARY.—Mrs. Mary Miller, an illegal "healer" of the Christian Science order, recently undertook to pray away an injury of the foot. The "claim" was too strong for her faith, however, and the patient, a 12-year-old girl, conceived the idea of gangrene, which belief she communicated to a surgeon, who was finally called in and who amputated the leg. The woman accepted \$51 for her divine offices. She was tried a few days ago before Judges Fitzgerald, Keady and Fleming in the court of special sessions in Brooklyn, was found guilty on the technical charge of practicing medicine without a license, and was sentenced to five months' imprisonment in the Kings County penitentiary.—*New York Medical Record*.

SANMETTO IN ALL FORMS OF VESICAL DISEASE.—I have found the preparation known as Sanmetto a most excellent remedy in all forms of vesical diseases that have come under my observation, especially the cystitis attendant on the presence of stone before and after its removal, and also the vesical tenesmus from colds and urethral inflammation, both specific and non-specific.—Jno. R. Papin, M. D., St. Louis, Mo.

SOLAR HEAT.—Direct exposure to the sun's rays; employment in or living in hot and poorly ventilated offices, workshops or rooms, are among the most prolific causes of headache in summer-time, as well as of heat exhaustion and sunstroke. For these headaches and for the nausea which often accompanies

them, antikamnia will be found to afford prompt relief and can be safely given. Insomnia from solar heat is readily overcome by one or two five grain antikamnia tablets at supper time, and again before retiring. If these conditions are partly dependent upon a disordered stomach, two five grain antikamnia tablets with fifteen or twenty drops of aromatic spirits of ammonia, well diluted, are advisable. For the pain following sun or heat-stroke, antikamnia in doses of one or two tablets every two or three hours will produce the ease and rest necessary to complete recovery. As a preventive of and cure for nausea while traveling by railroad or steamboat, and for genuine *mel de mer* or sea sickness, antikamnia is unsurpassed and is recommended by the surgeons of The White Star, Cunard and American Steamship Lines.

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## Publications Received.

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The Neuropathic Origin of Stuttering—W. Scheppegrell, A. M., M. D., New Orleans, La.

The Schleich Method of General Anesthesia, With Special Reference to Nose, Throat and Ear Practice—W. Scheppegrell, A. M., M. D., New Orleans, La.

The Relations of Movable Kidney and Appendicitis to Each Other and to the Practice of Modern Gynecology—Geo. Edebohls, A. M., M. D., New York.

Also the following by the same author:

Chronic Nephritis Affecting a Movable Kidney as an Indication for Nephropexy.

The Hernia Guarantee and the Minimum of Confinement After Operations for Appendicitis With and Without Pus.

Chronic Appendicitis; the Chief Symptom and Most Important Complication of Movable Right Kidney.

The Practice of Obstetrics by American Authors—Jewett, New York; Lea Bros. & Co.

This book is one of the best contributions to modern medical literature and in the arrangement of its chapters shows most sound judgment. The editor, appreciating the great importance of a correct understanding of the anatomy and physiology of the mother that is to be, has, in addition to the work of the well-



known men in whose hands it had been entrusted, written two of its chapters himself. The engravings on the anatomy of the pelvic and mammary organs are about the best we have ever seen so arranged and are sure to make a deep impression on the mind of the reader.

The pathology of pregnancy, treated of by Manton, Ethridge, Van Cott, Vineberg, and Henrotin, is handled in that way best calculated to impress essentials and are possibly the most important parts of the book for the practitioner.

The sixth part is devoted to the pathology of labor and for the student or young practitioner is sure to be found the most interesting as in it is found something which he will treasure up for an hour of emergency—hour is said advisedly for to the novice in midwifery, almost anything is an emergency. Pathology of the puerperium is dealt with in four chapters and is very much up-to-date; teaching, we are glad to see, the non-advisability of the ante-partal douche except as to where infection is known to exist.

The last part of the book is devoted to obstetric surgery which is handled in a masterly manner and as this particular subject is of great interest to both patient and accoucheur it deserves close study which it will well repay.

The book is well gotten up both as to printing and illustrations and reflects credit upon the well-known publishers, Lea Bros. & Co., New York and Philadelphia.

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For further information DR. MAURY can be addressed at the Sanatorium.

# The Journal

.....of the.....

## Mississippi State Medical Association.

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### Original Articles.

#### Tubercular Laryngitis.\*

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The careful work of such able men as Henryng and Krause in the field of laryngeal tuberculosis has been productive of such remarkable advances in our knowledge of the nature and treatment of this condition that a most decided impetus has, in the last few years, been given to the study of this disease.

The question is ever agitated as to whether there may be a tubercular process primary in the larynx, but while the post mortem table has not yet shown a case of tubercular laryngitis unaccompanied by other tubercular lesions, most laryngologists are of the belief that such may, although rarely, exist. This belief has received strong confirmation with me in a case of chronic ulcerative tuberculosis of the fauces and larynx, reported by me to the Memphis Medical Society in August, 1897, and published in the Memphis Medical Monthly of the month following. The history of this case in detail is as follows:

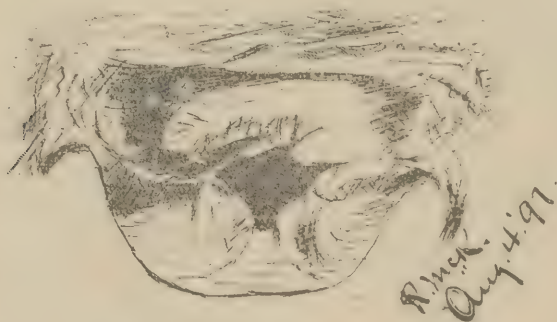
Martha J., æt. 13, colored, came to me for treatment of a "sore throat." She claimed that she had been suffering from this trouble for a period extending nearly two years back, this

\*Read before the Mississippi State Medical Association, April, 1899.

statement being substantiated by adult members of her family. Shortly after her throat commenced to hurt her, hoarseness accompanied by some fever and concurrent loss of flesh set in, but she was at no time subject to a cough, while her appetite remained good. Another remarkable feature was the apparent entire absence of pain upon deglutition. Aphonia marked. When first seen by me the child presented a somewhat emaciated and anemic appearance; her pulse was 96 and temperature 99 1-5. Supra and infra-clavicular depression of right side marked when compared with its fellow; diminished motion of right scapula, as well as diminished movement of upper portion of right lung; vocal fremitus increased over upper portion of right lung; upper third of right lung consolidated, and no doubt undergoing cheesy degeneration; old chronic bronchitis of both lungs, with sibilant and sonorous rales over greater portion of both lungs; on percussion left lung gave a slight hyperresonant note; marked dullness of right lung down to about fourth rib, showing consolidation of that portion of lung.

Inspection of the throat revealed complete ulcerative destruction of the fauces—soft palate, anterior and posterior pillars and tonsils being involved by this process. To the right a thin band and to the left a slight ridge of tissue were all the remaining evidence of a previously-existing soft palate. No sites of fresh invasion to indicate miliary deposits were apparent, the process in every way indicating its chronic nature.

Laryngoscopic examination revealed an existing condition in the larynx even more deplorable than that of the fauces, and I have in the accompanying sketch endeavored to depict



matters as seen by me in the throat mirror. The picture is that



usually presented by advanced ulcerative tuberculosis of the larynx. The epiglottis was somewhat turban-shaped, pale and ulcerated, the arytenoids being infiltrated and swollen, presenting here and there ulcerative spots. On phonation the vocal cords, entirely hidden during respiration by the swollen tissues surrounding them, could be brought into sight, but not approximated, the glottis then presenting a diamond-shaped opening, with the ulcerated cords for a margin thereto.

The child was at once put upon cod liver oil and creosote, but in anticipation of early *exitus* as a result of the pulmonary involvement, no local treatment other than cleansing the throat with an alkaline solution (Dobell's) and spraying the larynx with menthol in oily solution was instituted.

Since the treatment mentioned was instituted she has gained somewhat in weight, and, I am inclined to believe, febrile symptoms are not so manifest; indeed the child has all along exhibited a vitality surprising in one physically so undetermined.

In arguing for the possible primary origin of this disease in the larynx, I am of course loath to record myself as convinced in a case whose clinical history is gleaned from the no doubt inaccurate statements of a child of thirteen and her almost equally ignorant kinspeople; still the patient gives such a clear history of having suffered with this throat disease for nearly two years that a primary process in the lung, followed secondarily by the faucial and laryngeal ulceration, would necessarily have developed two years or more before she saw me. But as to this latter I am inclined to cavil, for the comparatively small amount of lung tissue involved in this case is hardly consistent with the usual history of speedy dissolution in this class of cases. Therefore we have either a case of primary tuberculosis of the fauces and larynx followed by pulmonary invasion, or else a remarkably chronic case of pulmonary tuberculosis with secondary laryngeal and faucial involvement.

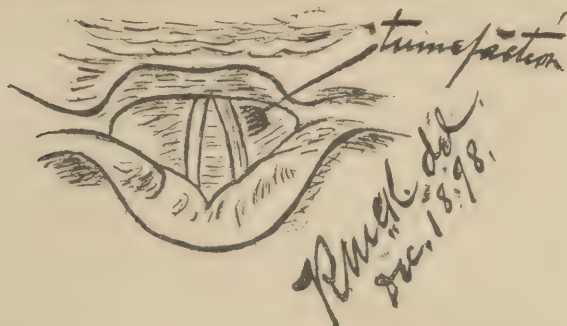
Tubercular laryngitis is considered to be of either exogenetic or endogenetic origin. By the term exogenetic we are to understand that the bacilli find lodgment in abrasion of the mucous membrane, and, suitable nidus presenting, there multiply. But as to this mode of infection giving rise to the local manifestations of tuberculosis in the larynx, every clinical evi-

dence points to the contrary. Experiments in extenso, have been made with a view to ascertaining the probability of the larynx being infected by the tubercle-laden sputa in its passage upward from the lungs, but have almost invariably resulted negatively ; we are therefore led to believe that the tissues of the larynx possess some peculiar resistant property to the germ-laden expectorate. The endogenetic route of infection—that is, through the lymph or blood channels—is regarded by the greatest number of laryngologists and pathologists as decidedly the most probable theory. No doubt the strongest evidence in favor of this view is the fact the tubercle bacilli find lodgment beneath the mucous membrane of the larynx and there multiply and destroy the tissues, working upward in their destructive process, finally reaching the surface, and producing by their ulcerative action, the characteristic appearance of tubercular degeneration. The infection of the larynx by extension from tubercular cervical lymphatic glands is an accomplished, but rare, occurrence, and I have again been so fortunate as to have in my practice a case of this character.

The patient, Mr. S., aged 30, a motorman, working for the Memphis Street Railway Company, who bore the appearance of good health, and had a clear family history, presented himself to Dr. F. D. Smythe of Memphis in May, 1898, for relief from a gradual enlargement of the axillary lymphatic glands, which he had been noticing for about two months. Consenting to operative measures these enlarged glands, so far as could be judged, were thoroughly removed, and on examination a number of them were found to have undergone cheesy degeneration. The wound healed slowly, with some local infection resulting, which, however, gradually cicatrized. Two months after operation patient presented himself with enlargement of infra-clavicular glands ; also enlargement of lymphatics along free border of pectoral muscle down to nipple of right side. A free incision was made from axilla to nipple, and the glands, which had broken down, were removed. An incision was also made below the clavicle of this side, and the removal of several large, cheesy glands effected. Patient rapidly recovered from this operation, and in the course of six weeks gained twelve pounds.

A few weeks later Mr. S. again presented himself to Dr. Smythe, complaining of fullness, with a sticking sensation

about the larynx, and a hacking cough with no expectoration.



Examination of his lungs revealed no apex catarrh or further indication of tubercular deposits. At this time the patient through the courtesy of Dr. Smythe, came into my hands for laryngeal examination. With the mirror I found the larynx pale, the arytenoids swollen, and the left ventricular band, anteriorly, presented a slight tumefaction suggestive of infiltration. Now, in this instance, there being no hectic when I saw the case, and the man to all appearances enjoying good health, I should likely overlooked a diagnosis of beginning tubercular infiltration of the larynx but for the patient's previous history of tubercular glands, together with that peculiar sticking sensation in the larynx complained of---a most common premonitory symptom of beginning laryngeal phthisis, his slight hacking cough, and, finally, his laryngeal picture.

Thus briefly I have considered the origin of the tubercular process in the larynx.

It is truly unfortunate that the laryngologist so rarely sees tubercular laryngitis until it is in an advanced stage, but the subjective symptoms of this condition are at first so slight that the general practitioner, who naturally first sees these cases, is prone to either overlook them or to dismiss the patient with a simple palliative. There can be only one rule to follow: If you have a patient with either a tubercular diathesis or a phthisical lung, who complains of beginning hoarseness or other impairment of the voice, refer him to an expert laryngologist for examination, for early treatment alone offers hope of amelioration or cure of the tubercular lesion in the larynx.

The laryngoscopic picture may vary to no little degree. Hy-

peremeia may occasionally be present, but the most constant early objective symptom is the peculiar pallor--a high degree of anemia of the larynx. It being the fact that the tubercular process most often first attacks the crico-arytenoid joints the joint attacked assumes a position of rest, and as a result we will observe that the vocal band of the side attacked is in the cadaveric position--that is, with neither complete adduction nor complete abduction. Where both crico-arythenoid joints are affected, both bands will assume the cadaveric position. Interarytenoid tumefaction, also a pre-ulcerative state, is early observed. That the swelling should first be interarytenoid is accounted for anatomically. The capsular ligaments of a crico-arytenoid joint is, in front, thin and loose, but behind is strengthened by a strong posterior crico-arytenoid ligament, behind which again is a firm fascia, connecting and covering the arytenoid muscle, and the crico-arytenoidens posticus. Externally, the capsular ligament is strengthened by the cricoid thyroid membrane. Therefore, if the initial mischief be in the joint, one would expect to see the consequent swelling in a front position, behind the vocal cords. Thus is explained the inter-arytenoid thickening observed invariably in every case. The earlier the case, the greater is the relative prominence of the inter-arytenoid thickening. The tumefaction then becomes more general, the arytenoids, ventricular bands and epiglottic fold being involved. With the infiltration and swelling of the arytenoids, these cartilages begin to take on the characteristic pyriform shape, and should the epiglottis be involved in the swelling, which is not always the case, it assumes that peculiar contour called turban-shaped. The swelling of the epiglottic fold sometimes, when both sides are affected, totally obscures the interior of the larynx. The vocal band of the affected side, being, as I have said, in a cadaveric position, is also opaque, with an occasional congested blood vessel. Erosions may, as the disease advances, cause the bands to take on a shaggy appearance. Ulceration is a final stage of the phthisis laryngea, and does not differ in characteristics from the tubercular ulceration elsewhere. Hemoptysis, while occasionally present after the ulcerative stage has set in, is to be regarded as among the rare symptoms. Dysphagia, in the beginning, is for fluids only, due to the faulty closure of the laryngeal lid, but as the disease progresses and the swelling and ulceration increase, there is dys-



phagia for solids also. This symptom was entirely absent in the first of the two cases which I have just related to you.

It sometimes becomes necessary to differentiate tubercular laryngitis from syphilitic or cancerous ulceration of the larynx, but this is rendered comparatively easy by the appearance of these diseases. In syphilis the ulcer is punched out, greatly hyperemic, has a tendency to repair, and also at times exhibits cicatricial tissue. In doubt, a course of the iodide of potassium will clear the diagnosis. Cancerous ulceration is characterized by its heaped-up, angry-looking margins and its tendency to devour every structure, indiscriminately, in its sure and certain advance.

Were I to attempt to enumerate the numerous remedies which have, even in the last five or six years, been advocated for the treatment of laryngeal tuberculosis, I am sure that I could occupy several hours of your time, but I am confident the therapy of this condition can be briefly summed up. In the pre-ulcerative stages, menthol in Olive oil or liquid vaseline in a twenty per cent. solution, should be sprayed into the larynx. This promotes resolution in the event that there be local hyperemia, and stimulates capillary circulation should an anemic condition be present. In the Central London Throat Hospital this has been adopted as an exclusive form of treatment. When the disease has advanced to ulceration, the local application of lactic acid, having previously cocanized the larynx, beginning with a twenty per cent. solution, is the treatment par excellence. In some cases it is better to curette the ulcers before applying the lactic acid solution. For this purpose I use Henryng's laryngeal curettes. Dysphagia is to be relieved with pastiles of morphine and cocaine, or cocaine sprays, or by the application of orthoform powder. While we can hope to permanently cure but few cases of this disease, still it should be our object to afford our patients the temporary relief which the means advocated certainly hold out.

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**Some Remarks Upon the Causes of Blindness of Thirty-Three Pupils at the Mississippi State School for the Blind.\***

BY W. S. SIMS, JACKSON, MISS.

Of the thirty-three blind pupils at the Mississippi State School

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for the Blind, ten are the result of congenital cataract, six ophthalmia neonatorum, five sympathetic ophthalmitis, two the result of burns, two retinitis pigmentosa, two congenital defects of the retina, one result of whooping cough, one atrophy of the optic nerve, one trachoma or granulated lids, one albino, one congenital absence of the papillæ and retinal vessels, one result of fever.

Without reference to the different varieties of cataract, the word is defined in general as an opaque condition of the crystalline lens of its capsules or of both of the structures. The eye may be otherwise healthy or there may be changes in other structures and the congenital variety is the result of disturbances of nutrition during intra-uterine life. The arrest of development and heredity are said to be responsible for its existence. The ten cases at the Institute have been and are now under treatment with gratifying results. One has returned home and entered a seeing school. Two others are now able to read by sight and will very soon be able to enter seeing schools.

The sight of the remaining seven is now assured, except two owing to congenital defects of the retina and optic nerve, but are happy over the results of the treatment as they are able to see their way about. Of the six cases of ophthalmia neonatorum the sight of but one has been benefited, which was done by making an artificial pupil.

At the time these six pupils came under my observation, they were all suffering more or less with inflammations and irritable conditions of the balls. It will be necessary to remove the balls in two of these cases before perfect comfort is secured, but the other four by a simple course of treatment are perfectly comfortable.

Of the five who are blind as a result of sympathetic ophthalmitis, we can only say that they are blind indeed, with no hope of a restoration of sight.

This fearful condition of things is usually the result of an injury to the fellow eye. It may be interesting to know that in one of these cases the inflammation made its appearance in the sympathizing eye as early as three months after the injury to the exciting eye, and in one as late as fourteen years. The two who are blind as a result of burns are able to see, even print, but are unable to pursue their studies by sight. They are both exceedingly bright girls, and are not only partially blind but their

faces are frightfully burned and disfigured. The two who are partially blind from retinitis pigmentosa are a sister and a brother.

This is rather a degenerative than an inflammatory affection of the retina. It is extremely slow in its progress, coming on in childhood and resulting in complete blindness late in life. A very characteristic symptom is night blindness and the contracted field of vision. The ophthalmoscope will reveal the true condition. Treatment is of little value, but strychnia and the continuous current has a few advocates. Two sisters are partially blind as a result of congenital defects of the retina.

The one who is blind as a result of whooping cough has a complete opacity of both corneæ and is hopelessly blind. The one who is blind as a result of atrophy of the optic nerves, says, he has always been blind but he has large and well developed eyes with well defined bluish nerve heads and almost a complete absence of the vessels. The one who is blind as a result of trachoma, is a case of pure neglect. At the time he came under my observation the disease had existed for nearly six years, with complete loss of vision. I have him under treatment, and so far as comfort and appearance are concerned he is much improved.

The Albino has very defective vision, so much so that he is unable to study by sight. The trouble is due to the want of pigment in the choroid and iris. In the next case we find almost a complete absence of the papillæ and retinal vessels. Otherwise the eye seems to be perfect. Last, but a very interesting case is complete loss of vision as a result of fever. He says the doctors could not agree as to the character of the fever, and he is at a loss to know about that, but he says, "one thing I do know, I could once see and now I am blind." The ophthalmoscope shows a pale disc with a few exceedingly small retinal vessels.

In conclusion I wish to call your attention to the fact that out of the thirty-three pupils at the Mississippi Institution for the Blind, at least twenty of the number could be in seeing schools with useful vision if they had received treatment at the proper time. Of the ten cases of cataract, eight, strange to say, were overlooked, some of them with many long years to live in darkness and acquire their education in an Institution for the Blind that is necessarily slow and tedious, to say nothing of the

helpless condition and the utter deprivations of innumerable pleasures that sight affords.

Of the six cases of *ophthalmia neonatorum*, it is safe to say they could have been saved from their most pitiful condition of eternal darkness by the proper application of less than two drams of nitrate of silver in a few ounces of water.

You can hardly believe it, but the father of one of these children tells me his child was treated with urine, and another tells me his was treated with breast milk. The next five cases could have been saved from their sad fate if all the important subject of sympathetic ophthalmitis had been understood by those in charge, and the proper course pursued in the management of these cases. I hope I will be excused when I tell you all injuries that come under my observation, especially if it be a perforating wound in the ciliary region, demands your very best care, as the other eye is in exceedingly great danger.

The case of trachoma, as I said before, is a case of pure neglect and the child's ignorant and indifferent father is responsible for it. There are good reasons for a strong suspicion that two others are blind as a result of bad management.

There are many other points of interest in connection with these cases that deserve attention, as of heredity and so on, but I will only call attention to one other. In reference to the change from the home to the Institute, some of these children at the time they were admitted, were seemingly objects of neglect, with no object in view to inspire and attract attention from their sad fate. But kind words of encouragement and a few lessons in music together with the great care and patience exercised by our teachers to advance them in their studies, all tend to make sad hearts happy and dejected faces bright in the hope that they will become industrious agents, and their lives or existence will not be lived in vain.

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### Water Supply in Rural Districts. \*

By E. A. CHEEK, M. D., ARCOLA, MISS.

Hygiene as a branch of medicine, I think, is very much neglected by the profession; four years ago as a member of the Yazoo Delta Medical Association, I was named chairman of the section

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on Hygeine and wrote to quite a number of the members soliciting papers but could arouse no interest at all. I think I can realize the importance of the subject myself, and have tried very faithfully to have it brought prominently before this association and have the promise of several papers which tend largely in that direction. In studying Hygeine, as Mississippi doctors, I would suggest that we pay some attention to the water supplies in rural districts, as a method of preventing some diseases.

There is a general show of indifference on the part of the people living in sparsely settled districts toward the kind of water used, in fact very little attention is ever paid to it: if it is clear, cool and palatable, the source is never questioned nor is the possibility of contamination ever considered. What was good enough fore our fore-fathers is good enough for us.

If water is suspected of being polluted it is advisable to have it filtered, or perhaps, still better, to boil it. To make the water palatable after boiling, it is necessary to use ice. In rural districts this is not practicable since ice at all times cannot be had: Therefore to use pure water at all times it must be collected pure and prevented from pollution.

The usual source of water supplies in rural districts are cisterns, springs and wells. For ordinary purposes spring water has always enjoyed a high reputation on account of being practically free from organic impurities but unfortunately, it is very seldom in this state that we can find a house supplied by spring water that, as a source of water supply, it can only claim a passing notice. Cistern water is rather a popular source of water supply, especially where well water is hard to get or from some cause the well water is not good; but on account of the insufficient quantity it can only be considered for drinking purposes and not as assurance for supply for general domestic purposes, as cooking and washing. In order to have a good supply of cistern water, it is necessary that the cistern shall be free from any cracks or crevices so as by no means to admit sipage water. A cistern is usually dug under a house or as near the house as possible, and the least water allowed to sipe in from the refuse surface water about a premises would render the water exceedingly dangerous. The cistern should be kept perfectly clean; each year before fresh water is caught, all water ought to be drawn off and the cistern well washed and the gut-

ters and house-top should be kept clean from dust and falling leaves. It should at all times be carefully covered to prevent the falling in of objects, such as rats and frogs. It can be seen at a glance how difficult it is to catch clean water and have it remain uncontaminated several months at a time. To have a well-fitting cover and have it remain unpolluted by buckets and dippers, the ordinary chain buckets answer admirably.

If the water is carefully collected during the fall and winter rain while the atmosphere is free from dust, the house-top is clean from constant washing, the cistern well washed beforehand and kept closely covered, I cannot see why the common cistern water is not as free from disease germs as is possible for water to be. But the most common source of supply for a very large proportion of the population of the state is well water: It is usually convenient and sufficient for all domestic purposes. It is sometimes polluted as spring water, by containing dissolved mineral matters and not usable. The relative position of a well to a house and its surroundings has largely to do with its purity or impurity. As a rule, wells are dug as near the house as possible for convenience of getting water; or sometime where stock has to be watered from the well, it is dug in one corner of a barn yard; or a man builds his house, barn, and other out-houses on a hill, and for the sake of economy digs his well on the hillside, or perhaps in the bottom where it is not necessary to dig very deep. It can be very readily seen that these are not good locations. Where a well is dug forty or fifty feet deep and the water must percolate through the earth to that depth in order to get into the well, that water is usually well filtered and recognized as pure water. The object is then to prevent the introduction of water from the top of the well or from as near the top as is possible. When a well is dug in a yard or barn yard, during a heavy rain it is practically impossible to keep some of that water from running directly into the well or through some crevice at the top; when the water is then used it would not be well water but a collection of surface water surrounding a premises or stable yard. The same may be said of wells dug on a hillside or in a bottom, the water from a hill must at all times pass near the well and at some unexpected time will find its way into the well and introduce all the organisms of cholera, dysentery, typhoid fever, malarial, or other disease germs that are usually conveyed in drinking water. A well

then ought to be located out of reach of any polluted surface water and at least on a level with surrounding buildings, or if possible, a little elevated, so that the surrounding water will drain away, instead of toward it. After a well has been properly located at a suitable distance and position relative to a residence, it must be properly curbed and protected against falling-in-objects. The ideal curb for a well is brick or stone, something that will form a solid wall from top to bottom and prevent any introduction of water except from the bottom; then we have water that has been filtered by the living earth through a suitable distance and is practically pure; but on account of the extra expense of brick it is necessary to rely upon plank as a curb and that should be constantly looked after and repaired.

Another source of water is wooden tanks. These tanks are cheap and convenient receptacles for water and are very largely used both for washing and drinking purposes: especially are they found servicable in the delta portion of the state, where the pump water, which is the usual source of supply, has an unpleasant taste, is hard, and not good for washing.

Under all circumstances wood is the most unsuitable material of which to construct reservoirs for storing water; it gradually rots and gives up organic matter to the water and encourages the growth of worms and other low forms of life.

These tanks are usually small and in order to have a constant supply of water, it must be collected at all seasons of the year whether the weather is warm or cold, if the house top is covered with dust and ashes, all goes into the tank and since these are usual carriers of disease germs, tanks ought not to be used at all.

Just here will relate an instance that occurred in my practice last summer. A family in my town using tank water but a little smarter than usual made an opening into the ground and let the tank into it or rather had an under ground tank; nearly all of the family was taken sick at the same time and in the same way, there was no other sickness in the town especially and they began to wonder why the family was sick and their neighbors just over the fence with same size family was well. I suggested that they try a change of water, which they did, and have heard no further complaint.

The one disease that seems to be most prevalent in Mississippi and which seems to augment the death rate, is typhoid

fever, the germs of according to best authorities are conveyed largely in drinking water. Just to what extent typhoid fever kills the people in Mississippi no one can say, since unfortunately for the state, our law makers have never considered it of sufficient importance to enact a law requiring that vital and mortuary statistics be kept.

Some cities where statistics have been kept, would be glad to call your attention to the change in death rate from the one disease, typhoid fever, brought about by change of water supply.

In most large cities in this country the typhoid death rate is accepted as a direct index of the character of water supply, and it seems to be a fact, almost without exception, that any marked improvement in the latter will be followed by an immediate reduction in the former. According to the findings of the courts, each death in a community is estimated at a loss of \$5,000.00. According to that estimate, the city of Chicago loss \$10,000,000.00 in 1891 from typhoid fever alone. The abandonment of a shore inlet near the mouth of the of the sewage polluted Chicago river in 1892, resulted in a reduction of 60 per cent. in the typhoid mortality during the following year.

Lowell, Mass., with a population of 44,654 in 1890 built a filter at a cost of \$67,000.00 and saved enought lives at \$5,000.00 per head to pay for it in the first four mounth that it was in use.

Philadelphia had a death of 40 per 100,000 in 1895, and by a change of water supply was reduced to 32 in 1896 and 1897.

Again in Plymouth, Pa., 1895 out a population of 8,000 there were 1,104 cases of typhoid fever and 114 deaths within a few weeks as a result of the pollution of the water supply by a single person,

From the Memphis Commercial Appeal of the 10th, of this month I copy the following: The action of Chancellor McGill of New Jersey in granting an injunction restraining the city of Patterson temporarily from doing anything to increase the pollution of the Passaic river by emptying more sewerage into it, is attracting much attention. Patterson is a city of 100,000 inhabitants. Less than a score of miles below it, upon the same river stands New Ark and Jersey City. Both of these last named cities get their water supply from the Passaic, and they claim that the sewerage from Patterson has rendered the river so foul that even piscatorial life has been extinguished.



Typhoid and other fevers make ravages among the inhabitants of the two cities who use this polluted water.

In the same article, the city of Memphis congratulates herself on the use of Artesian water.

Now as a water supply in rural districts, I would not recommend that each farm house in the state of Mississippi attempt to put in a regular system of water works for the prevention of typhoid fever but each farm house in the state can abandon the use of surface water, such as branch water, ditch water, or tank water and use water only from a well that has been properly located and protected; or use cistern water that has been collected systematically or preferable still, where it can be afforded, use Artesian water.

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### How Do Curative Agents Act ?\*

By H. A. MINOR, M. D., MACON, MISS.

In the study of diseases, their pathology, diagnosis, prognosis and methods of treatment, I have been seeking a plain working method—a chart to steer by—that would help me to reach my haven in the safest and best manner.

I feel quite sure that the chart which I herewith present you is based on a foundation—though as yet it is crude. I beg your patient and earnest attention to what I have to say, and your candid consideration thereof.

In the two great nerve systems, the Cerebro-spinal and the Sympathetic, reside "Life", with all its potentialities and activities.

All other parts of our organism are inert, functionless, dead,—save as they are vitalized and energised by these. They supply every part, even every microscopical part, with vitality and energy through their nerve fibres; which, emanating from them, find their terminals in all areas, each terminals having a very minute bit of grey matter at its tip, (some author has suggested this and the argument for its truth is to me irresistible). By this means messages may be sent and received, so that centres may know what is occurring at the terminals, or periphery, and these latter may know the will of the former.

These bits of grey or brain matter, and the nerve fibre con-

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\*Read by title before the Mississippi State Medical Association, April, 1899.

neeting them with the centres are all integral parts of said centres. Not can the functions of the one centre be performed without the co-operation of the other; yet each is supreme in its own realm. Relatively perfect performance of these duties, together with normal, reciprocity, co-operation and co-ordination, constitute Health.

Abnormal performance of functions on the part of either or both, destroys these balances and reciprocities; and the consequent abnormalities constitute disease, which is local or constitutional, according as it may affect a locality, or involve a whole organism.

The restitution to the normal standard of relationships, balances etc., together with the removal of the effete matter left by the disease, and the restoration of the tissues, whose vital forces were impaired thereby, constitute cure.

The object of this paper is to show how, in the opinion of the author, this result is to be obtained.

If life and all its powers do reside exclusively in these two systems, if health is the normal balance between them, and if disease is departure from this normal balance and reciprocity, then cure must be had through these same two systems; by so modifying the functions of either or both, as to restore these balances; this holds whether the case be local or general. No other parts or organs can do aught of this of themselves; they can receive no information, give no help, save as they are able to do so by the centres which supply them with ability to perform their functions. Thus it is apparent that all their powers in maintaining health and in restoring it are derived from one, or the other, or both of these vital centres.

A steam-engine, though so wonderfully constructed with means so accurately adjusted to secure desired ends, is of itself dead and inert. But let the engineer fill its boiler, build the fire, then, after sufficient steam is generated, open the throttle, then we have a power—wonderful, easily controlled, performing perfectly the work for which it was intended. So the body, with all its organs so wonderfully formed for the performance of mysterious and unfathomable duties, is inert unless the vital forces supply the motive, and controlling power.

Pathology is necessarily built upon physiology; just here I must briefly review a part of the latter, that I may be able to build safely the former as claimed. The Cerebro-spinal system

has charge of animal life; the sympathetic of vegetation. The former has its home in the brain and spinal cord, together with its outlying parts that go to every portion of the organism. Under the imperial dome of the skull, dwelling in darkness and mystery, resides the life—the mind, the immortal soul. Here is the “imperium in imperio”; for this intelligence this home was devised by the Almighty and All-Wise God; for its service He devised all elaborate machinery of the organism—these systems within systems—with capacities and powers that are beyond computation or analysis. The soul life lives in a palace, which we know as the Cortical substance, or the Cerebral hemispheres. In its chambers and halls reside the mental and moral faculties; here lives and develops character; here learning has its libraries; invention its workshops; thought its store houses; memory dwells here, her walls hung with pictures, her shelves filled with relics of the past. Here reason argues, and logic formulates its conclusions; and Rhetoric evolves its Metaphors. Here imagination has her home, whence she wings her limitless flights. Here conscience hold her courts, and hither come the appetite and the passions to clamour for indulgence.

In to this realm comes the Spirit of God, to brood over the soul, and offer it eternal life. Here that soul is prepared for future existence. Here it develops characteristics that show its kinship to God, and fits itself for everlasting happiness with Him; or, Oh! direful fate! it neglected its opportunities, shrivels and shrinks into hideousness, and finally sinks into the unfathomable abyss.

Just below this royal palace lie the offices of the five senses: (through which the life and the mind) holds its relationship with the outer world; below these and around them are those of the sensorium, the muscular centre for the co-ordination of muscular action, respiration, heart action, and digestion, and all along down the spinal cord are the offices of the various departments, that belong to this system. Over each presides an intelligence, a part of life itself, that faithfully performs the duties pertaining thereto, and each of these is connected with every other offices, and with the great central palace in a most intricate and wonderful manner, yet there is no infringement of the one upon another, and perfect order prevails. To this system belong all the activities of the mind and body as we see and know them.

All that has been done and all that yet be done by man,

either in the realms of literature, art, science, mechanics, or in any other department of mans work, all belong to this system. Yet it is unable to do aught to sustain itself, or to repair any waste, to make a drop of blood, or mend the slightest breach of continuity. Without help it would sink into death in a short space of time.

The great and benign Creator, however, put within our organism a second great life-centre, the sympathetic or ganglionic system of nerves; subordinate to the first, indeed, but almost as great a wonder in power and capacity. It works in the dark interior without display or ostentation, silently, steadily, ceaselessly, beautifully and effectively.

The life dwells, as is appropriate, in the brain, the cord and their dependencies; the sympathetic dwells and rules in the abdomen, in the ganglia lying on each side of the spine, and in all the minute ganglia, some microscopic, distributed throughout the organism; thus having its homes where it must do its work. These two great systems are inter-dependent; each must support the other, and at the same time counterbalance the other. The normal display of these counterbalances, and co-ordinations constitute Health.

The Sympathetic is the great "*Vis Medicatrix Naturae*"—the tissue builder and repairer, the remover of waste matter and poison—the great INNERVATOR. It controls the muscular coat of blood vessels, that of the alimentary canal, and of all other tubes of the body: it controls all glandular action, it inspires and controls the lymphatics—the scavenger takes up and carries off effete materials, renews worn-out tissues, and binds up and heals breaches and injuries. Like the Cerebro-spinal it sends its nerve fibres to every part of the organism, having an intelligence at the tip of each terminal fibre, which, since it must send and receive messages, besides performing other intricate duties, seems to be an integral part of this system. It makes the blood, keeps it vital and forceful, guides it along the capillaries, giving it just the proper momentum, and to each part exactly the amount it wants, besides it enables the tissues to apply to their needs the necessary pabulum, together with power to transform it by cell-proliferation, into new tissues. As the food enters the mouth, it excites the adjacent glands to pour into it the fluid needed to fit it for the stomach digestion: then it causes the glandules of the stomach to supply the digestive fluid required



there: so all the length of the digestive tract, it superintends the transformation of the food into chyme, then gives power to the villi to absorb and assimilate it, changing it into chyle; and thus it carries on the process until it is made into blood. Every action of the Cerebro-spinal system, causes waste: unceasingly this waste matter is removed, and the injuries repaired by the Sympathetic.

I hope I have now made clear my idea that in this system lie all the powers of growth, recuperation and repair. To it we appeal for help in most diseased conditions. But we must not make the mistake of neglecting to bespeak the helpful offices of the Cerebro-spinal system also, for without its co-operation the Sympathetic cannot work. To the former belong the forces controlling circulation, respiration, heat production (in part), and digestion (in part). In it resides the life. We must so conduct measures as to secure as far as possible, control of this centre, that we may thereby regulate the great life forces. We must strive to balance and co-ordinate these with those of the Sympathetic; to tone down one, stimulate the other, or otherwise modify their functions so as to get this balance restored as far as possible; but it is the Sympathetic that cures.

We should not waste time or energy by appealing to the various organs and parts primarily, as if they had innate power; no, this would be as absurd as for one to appeal to a squad of soldiers to secure an end, when the commander was by. When organs are at fault the physician must first ascertain to what centre they pertain, and from which they obtain their power to act. If it is desirable that an organ should do more or less, appeal by remedies to the nerve centre that vitalizes it. The principles here advanced hold good whether the disease be local or general—it is a matter of degree, not kind.

Pathology is perverted physiology. To repeat;—health exists when these two nervous systems balance, *disease* is the loss, local or general of this state; *cure* is the restoration of normal functions in both. Permit me to illustrate by a few hypothetical cases. A man of full habit, given to over indulgence in eating, falls to the floor; he loses consciousness, breathes stertorously, has a slow sledge-hammer pulse, purple face, etc. He has apoplexy; the pathology is loss of balance between the two great nerve centres by overaction on the part of the Cerebro-spinal. The expansive power of the blood current through its over stim-

ulation of the heart, has overcome the contractility of the muscular coat of the blood vessels, which under the control of the sympathetic: consequently they have been so distended as to fill the brain too full of blood—and the capillaries have so stretched that one of them has bursted, and a clot in the brain is the result.

The treatment in this case sustains my hypothesis—the Cerebro-spinal system must be depleted by applying cold to his head, blood-letting, purging, and the use of what are termed heart sedatives (veratium, for instance), and this system is reduced to an equilibrium with the sympathetic. That is all that can be done by the help of the cerebral centre: but now the sympathetic resumes its functions. It absorbs the clot, carries away all effete matter and waste; repairs all injuries and effects a cure.

Again, a man is thrown from his horse, receiving a concussion of the brain. He is pale, his pulse is fluttering, his breathing shallow, his mind apathetic. What is the pathology of this case? The Cerebro-spinal centres are so depressed by the concussion, and the expansive power of the blood is so feeble, that the muscular coat of the blood vessels, not being resisted as usual, by the expanding power of the blood-current, contracts their lumen beyond the normal: the heart receiving but feeble nerve force, is hindered in the transmission of the blood, which accumulating in the lungs, produces congestion, the parallism and balances between the two great centres is not speedily secured.

The treatment of this case, also, sustains this hypothesis. What are termed "heart-stimulants", but what are really stimulants to the nerve-centres, especially to the medulla, are administered; heat is applied to the head, neck and extremities; the supine position is maintained. Strychnia would maintain both centres, and here we do not wish to stimulate the sympathetic; so with it give a solution of Nitro-glycerine, which inhibits the functions of the sympathetic, and leaves the strychnia's effect upon the Cerebro-spinal system unimpaired—thus the equilibrium is restored. Here as always, the sympathetic must repair damages before the cure can be complete.

Take a third case; a man receives a blow over the solar-plexus and Semi-lunar gaglio, the abdominal brain. He falls dead—is pulseless, barely breathes and is very pale. The pathology is greatly restricted functions in both centres through the harm done to the sympathetic. Loosed from the control of this cen-

tre, the muscular coat of the blood vessels dilates widely, becoming flabby and inert; the man is in danger of bleeding to death, into his own veins, the blood gravitating to the interior, especially into the thin coated and dilatable veins of the abdomen.

The treatment of this case also, proves my theory. The dynamic power of heat is invoked. It is applied by high enemata of hot water, thus filling the transverse colon, which lies just below the abdominal brain, and in the midst of the abdominal viscera: it is applied to the hypogastrium—to the spine, back of the head and to the extremities. Both centres must be aroused and stimulated to resume their functions to a normal degree and must be carefully co-ordinated. To effect these indications we use strychnia, as it acts as a stimulant to both centres; and we must use such other stimulants, local and general, as are indicated, following them with tonics that the sympathetic may have power to do its usual detergent and reparative work.

Another man receives a gun-shot wound, the physician upon examining him, stops to consider whether or not the power of nature, (alias that of two great centres) will be able to cast off or absorb the tissues that are to become narcotic, and to heal the wound if properly aided by curative agents, including food and management. If he concludes that this cannot be done, he invokes the aid of surgery, and it leaves a clean, aseptic wound that is within the power of nature to heal. In this work both centres co-operate and both act normally, and the equilibrium between them is maintained. There is no fever, no pain, no undue heat, no inflammation. Supported by the Cerebro-spinal system, the Sympathetic proceeds with its work of repair; it lays down new tissues and in due time the cure is made.

But suppose the surgeon does his work carelessly, or the dresser fails to observe the rules of cleanliness,—all is changed; microbes invade the tissues, proceed to business and establish their primary focus. They soon generate their peculiar ptomain and it sets up the secondary or centric focus. in the cerebro-spinal centres. Then fever is produced: pus is generated, the equilibrium between the centres is lost and there is a state of disease. The wound is septic. The Cerebro-spinal, excited by the ptomain has increased and perverted functions as shown by fever. The Sympathetic system proceeds vigorously in its efforts to eliminate and to repair, but it is hindered by the causes just named,

and by the adverse power of the microbes. It builds fortifications behind which to work and the microbes melt them down. Victory may be finally gained by it, but the rebuilding repairs will consist of too much cicatricial tissue, which is of low vitality. With victory comes the restoration of the normal balances between the centres.

I will further illustrate my hypothesis by a hypothetical case of a chronic disease in which the fault lies mostly with the Sympathetic. I'll take Phthisis Pulmonalis. A man with hereditary tendency to tuberculosis is exposed to vicissitudes of weather and unsanitary environments. This tendency is in effect—a weak sympathetic nervous system. The form and locality of the resultant disease is determined by circumstances. In this case there is feeble digestion and languor—with shallow breathing, and there are “eddy” places in the lungs, especially in the apices, where fresh air comes sparsely and where the mucus is prone to stick and become stale. The tubular bacilli gain access to this man's lungs, and find a congenial nidus or home in these apices; so they settle down and proceed to multiply and then they begin to generate their specific Ptomain. Here is the peripheral focus; the Ptomain gets into the blood and thence to the Cerebro-spinal system and sets up its secondary or centric focus there.

Up to this time there is little to excite attention of patient or physician; but now fever of a low type, slow and almost imperceptible, but persistent, sets in. The weak Sympathetic, feebly combats the degenerate processes which extend slowly. The whole organism sympathizes, and death may close the scene, or he may linger along and finally recover.

How should the physician proceed under the hypothesis—luckily the sympathetic system with all it needs to render it most effective, especially with food and tonics that will enable it to fill the bloodvessels with rich, good blood, securing the best sanitary surroundings, and most hopeful and cheering influences; The physician should try to inspire hope and gain the confidence and co-operation of his patients.

The battle waged is long and tedious. On one side are arrayed the specific bacilli and their ptomain, the former entrenched in their peripheral focus, the latter invading all parts of the organism, especially attacking the medulla and the adjacent



parts of the cord, whence the fever, impaired digestion, etc. The inherited tendency of the patient is also their ally.

On the other side is the sympathetic system with its control of blood production, ganglionic functions, its systems of sewers, its power to tear down and to rebuild tissue: these powers aided by all hygienic and sanitary aids available, especially deep breathing of pure air freighted with antiseptic materials, constitute the defensive forces. Forced and deep breathing sends this air into all eddy spaces, and loosens up old stale mucus, expelling it along with bacteria and their sporules. A hopeful spirit is a powerful ally. All these with wholesome food, suitable clothing and open bowels, with plenty of exercise in the open air. Thus the battle rages. I verily believe the time is not far distant when by aid of improved methods, the odds will be in favor of recovery, when the treatment is begun early and enforced faithfully. In such cases as these, the fault lies primarily with the sympathetic, but the Cerebro-spinal soon becomes affected. As is usual when the sympathetic is primarily affected, the disease is slow and persistent, below par, requiring stimulants, tonics, good food, elevating influences, etc. As elsewhere the equilibrium must be restored, the reparative processes accomplished by the sympathetic and then there is cure. I will not multiply hypothetical cases as I might.

Some one may ask, how do you limit the term "curative agents"? I limit it to those that directly appeal to one or both of the great life centres and have power to so modify their functions, as to tend to the restoration of normal equilibrium; this whether the disease be local or general. In this great class I name alteratives, tonics, purgatives, diuretics, diaphoretics, narcotics, sedatives, stimulants, depressants and etc.

A great many of our best remedial agencies are not included, among which are all surgical procedures and appliances, and all chemical and electrical agencies. These are invaluable in removing impediments, be they foreign bodies or abnormal growths, or what not that are beyond the power of the sympathetic to remove even when aided by judicious medications. They have no power to heal, but they can leave the parts in admirable condition for the healing process.

I might here enter into explanation as to how, in my opinion medicines produce the characteristic effects on the various parts and organs; but I think the main points obvious, and time presses

me. I wish I had time to dilate somewhat on the power over these two life centres that may be exercised by mental and moral influences.

Here is material for a profitable essay by itself. If all the organism was formed and put together for the use and behoof of the life (Spirit) then it necessarily exerts powerful influences over it for good or for evil, for preservation or restoration of health or for the production of or continuance of disease. The wise physician expends time and thought over the problem of of how to control it for good.

I have no new remedies to recommend at present, I am trying to clear away obstructions, open up vistas along the way. As Isaiah sayeth "lead the blind by a way they knew not, lead them in paths that they have not known; to make darkness light before them, and crooked things straight."

This effort is necessarily crude and imperfect, but I feel that the seed thoughts here sown will spring up and be developed by thinkers into a harvest of good. I feel that I have just picked up a few surface truths that lie over a mine of truths that lie beneath.

Gentlemen, I have presented to you the result of much thought and I have been moved thereto by an earnest desire to advance the cause that we all advocate and spend our lives in forwarding—the healing of disease.

#### MY IDEAL METHOD FOR MAKING A DIAGNOSIS.

Examine the patient with a view to the acquirement of knowledge of the relation existent between the two great centres each to the other and of each to their normal condition. Interrogate every organ and part of the organism, note every departure in any of them from the normal. Not to treat them directly, but through them, to ascertain the pathological condition of the centres. Then so treat these as to restore their normal equilibrium and their co-ordinations in doing which the restorative powers are put in operation and cure will be the result, if the case be curable.

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#### Examination of Urine for Life Insurance.

BY W. A. EVANS, M. D., CHICAGO, ILL

Of the 23,257 deaths in the city of Chicago during the year 1896, 818 were due to nephritis in some form, or 3.5 per cent.

were from this cause. But these figures by no means express the importance of the kidney from a health point of view. These organs contributed perhaps to some extent to almost every case of death, except the 1,358 which were due to violence. They are a determining and very important factor in all processes demanding that excretion be either increased in quantity or change in quality. So much for their importance to us as physicians.

The kidneys acquire additional interest to you as insurance men because the men who pay for insurance are usually men who live well, and men who are able to live well are prone to arterio sclerotic phenomena, which may be located in any organ. The kidney is frequently the only one of the organs in which you can measure the effects of arterio sclerosis, and it therefore becomes your index to the amount of general arterio sclerosis.

At Dr. Stowell's suggestion we took the laboratory reports on three thousand urines. There was no effort at culling. They ran through all seasons of the year. The specimen was usually a few hours old when it was examined. In most of them there was something in the condition of the patient that suggested trouble with the kidneys.

The following are some of the percentages bearing on the formed elements found: Thirty per cent. of all the urines contained casts; 13 per cent. contained albumin (this is exclusive of the albumins due to pus and blood); 17 per cent. contained casts without albumin; cylindroids were found in 21 per cent. of all the urines; of the urines with a specific gravity below 1018, 50 contained albumin and casts, or casts alone; 9 per cent. contained cylindroids alone.

Of the cases in which casts were found, 45 per cent. showed hyaline casts alone; 55 per cent. showed other forms of casts, Granular casts came next in frequency.

Of the cases in which albumin and casts were found together, 29.4 per cent. contained hyaline casts alone; 70.6 per cent. contained other forms of casts either with or without hyaline casts.

It is true, in a general way, that those cases with hyaline casts alone had smaller amounts of albumin present than in the cases showing the other varieties of casts.

In those cases in which casts were present without albumin, 53 per cent. gave hyaline casts alone; 47 per cent. gave all kinds of casts.

Pus was present in 6 per cent. of all the urines. The pus

meant a cystitis, urethritis, ureteritis or nephritis, or any or all four. Effort was made to exclude the cases in which pus was from vaginitis. Of the pus cases 66.7 per cent. were of acid reaction; 29.9 per cent. were ammoniacal, and 2.3 per cent. were neutral. We are not in a position to say how many of the 29.9 per cent. were acid when first voided. We merely quote these figures to refute a belief now nearly abandoned, that is, that the urine in cystitis is alkaline, and in pyelitis, it is acid. The urine in pyelitis, cystitis and ureteritis is acid until secondary infection causes the decomposition of urea into ammonia, within the bladder, pelvis or dilated ureter.

In 51 per cent. of the pus cases the urine was below 1015 in specific gravity, 73 per cent. of the urines gave no crystals. Of the 27 per cent. that gave crystals:

Oxalates furnished.....	13.5 per cent.
Urates furnished.....	3.6 per cent.
Uric acid.....	6 per cent.
Triple phosphates.....	3 per cent.
Miscellaneous crystals less than.....	.5 of 1 per cent.

Of the triple phosphate cases it is probable that more than 2 of the 3 per cent. were cases in which the deposit was not taking place inside the bladder. It is significant that oxalates furnished more than twice as many cases as did uric acid.

It is no doubt true that but few of the cases of this 13.5 per cent. of oxalates had a deposit of oxalates in the bladder. The average of our specimens is just about the time in which oxalates are thrown down in the urine.

Another interesting fact is that the cases showing crystals of uric acid and urates did not always show a large amount or a large percentage of uric acid.

I wish now to devote a few moments to kidney pathology, bearing the insurance examiner's standpoint constantly in mind.

As I understand your situation, it is this: Your life expectancies are so arranged as to give the examiner a good deal of leeway. Improved urine methods, the centrifuge particularly, are given results that under the old classification demanded rejection, yet some of these cases your judgment tells you are safe insurance risks.

Acute Nephritis.—Our experience leads us to believe that acute nephritis after operations and various infections, such as typhoid, streptococcus, tonsillitis, grippe, scarlet fever, diphtheria,



etc., is exceedingly common. We have so frequently encountered it in ordinary malaise or delayed convalescence after these and kindred other infections as to lead us to the above conclusion.

This nephritis is of a mixed exudative and parenchymatous type, and if self-limited. That is to say, the *materies morbi* is acting for so short a time as that the amount of neither destruction nor production is excessive. These cases do not largely concern the medical examiner, because, firstly, in their acute stages they are not liable to escape him, even should they apply for insurance; secondly, they do not often result in subsequent disease at the insuring age. We will discuss the second proposition:

There is a pathological law that every violent pathological process either results in rapid death or else it stimulates reactive processes which annul or destroy the primary cause of the process. It is not only the exception, but far more the exception than we think, when these nephrites go on to a chronic disorder, or start a disorder which lies latent for ten years and then is recognized.

As urines are more frequently examined, the number of the cases of acute nephritis that are accidentally discovered and that promptly get well increases. The old ideas are founded on the old experience.

This leaves two types of nephritis for the examiner's consideration, processes that, for the want of information, are termed idiopathic:

1st. The kidney of chronic parenchymatous nephritis, with secondary contraction.

2d. The cirrhotic kidney.

The chronic parenchymatous nephritis with secondary contraction. This group (for it has been subdivided according to its stages) is due to the elimination of substance by the kidney destructive to its epithelium. I assume that it will be allowed that if the kidney epithelium excrete a substance it is because that substance either irritates or stimulates that epithelium. I also assume that it will be granted that the kidney epithelium excretes the waste substances of the body because those substances, while generally irritating to nerve and other cells, are especially irritating to kidney cells.

Lack of this irritation means decay from disease. This irritation, physiological as to kind and amount, means work, growth,

repair. This irritation exaggerated means breaking down of kidney cells. For a long time the healthy cells replace those destroyed or lost. In this stage you may get casts or even albumin. At length compensation ceases, or is inadequate. Then comes into play, perhaps for the first time, another pathological law. It is, whenever there is a destruction of highly differentiated tissue, there is a new growth of lowly differentiated tissue to replace it. By reason of this these kidneys in time contract in much the same fashion as those of the third class.

The first class gives a urine that follows about this type. The gravity is generally higher than in the second group of chronic nephrites. The percentage of albumin is higher. The number of casts greater. It is accompanied by exudation into the general tissues, anasarca. The course of the disease is rapid because it is primarily an affection of kidney epithelium. These people cannot be good insurance risks. They die usually within a few years. They are recognized both by physical signs and by even moderate care in the examination of the urine.

The third type is the one that presents the greatest difficulties. This type of kidney is essentially arterio sclerotic. The irritants affect the connective tissue and especially that of the capillary wall. The epithelium is often well preserved. The connective tissue overgrowth serves to protect the kidney epithelium from poisons. Therefore the epithelium in the connective tissue areas is oftentimes the most normal to be found in the kidney. These people do not die from the interstitial overgrowth. They die from an acute parenchymatous nephritis in the previously healthy parts of the kidney. This acute parenchymatous nephritis may be engendered by toxic agents, such as ether, carbolic acid, iodoform, or it may be due to toxæmia, such as that of typhoid, "colds," etc.

The man with an arterio-sclerotic kidney can live to pay his ten premiums. But he is certainly a man with a lowered capacity for resistance. For the ordinary functions of life he is fully equal to his neighbors. But let him contract pneumonia, or go duck shooting and "fall-in," thus consummating an infection, and his limited number of epithelial cells, which can easily reach the blood in the capillaries, undergo cloudy swelling from overstimulation. The man dies from insufficient excretion.

I have yet to see a healthy kidney removed from an adult. I mean a kidney in which the microscope revealed no changes.

Casts mean degenerating epithelium. Every kidney in which there are casts or albumin is a diseased kidney; but this does not necessarily imply that the organ is now or ever will become symptomatic.

What will the examiner do? Shall he abandon the centrifuge and reject all cases showing casts? The centrifuge is not to be rejected any more than any other instrument of precision. As well reject the ophthalmoscope or the microscope. The old significance of casts is to be rejected and a new percentage table arranged.

If in a urine you find albumin and casts in quantity, have the applicant call again in one month. If originally he has acute nephritis it in all probability will have passed away. If he is free from albumin then, direct him to call again in three months, and if he had acute nephritis at the first examination and he still remains free from indications to this examination, you can in all probability safely accept him now.

If at the second examination the albumin and casts keep up, he probably has chronic parenchymatous nephritis, and will never be a good risk.

If you encounter a man with urine of low specific gravity, the chance of his having nephritis is just fifty per cent. If you find casts or casts and albumin few in number and small in amount, keep him under observation for a few week if casts alone are found, or for several months if both casts and albumin are found.

Your experience will show you that some people with casts are good risks, some with casts and albumin are good average risks, some will be hazardous risks, some must be rejected entirely.

Who will bear the expense? The company will bear the initial burden. The man will certainly be anxious to bear the later expense, for, with casts in his urine, he becomes his own solicitor.—*Columbus Medical Laboratory.*

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## Editorial.

H. M. FOLKES, M. D., . . . . . BILOXI, MISSISSIPPI,

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Those intending to contribute papers in any of the sections will please send copy of same to chairman of section in which it is written so that those appointed to lead in discussion may have opportunity to prepare themselves along line written upon. This should reach the chairman not later than March 15, 1900. The names of those appointed to discuss the various papers will be announced later, as the chairmen make selections.

Just as the sun is setting on the nineteenth century it is a matter of surprise how any sane man should willingly desire to retrograde. Yet here in our own state we see some foolish news-



papers clamoring for an open field for the quacks and charlatans. However on second thought one should not feel much surprise at anything emanating from some of our little country papers which are swayed by every passing breeze and glibly recite some man's views that they have just this morning read. About a month ago a Canton paper had a windy and querelous editorial on the subject in which no small amount of ignorance was exhibited in stating that the state board of medical examiners had deprived a large number of men from making a living by refusing them a license to practice their profession in which they were declared competent by the colleges graduating them. The writer, said to be a doctor, by the way, also inveighs against what he is pleased to call the illegality of any such proceeding and terms it class legislation and winds up in an appeal to the legislature to wipe all health laws off the statute books, and let it be every man for himself. First as to the legality, every supreme court in every state where the matter has at all come up has decided that restrictions around the practice of medicine are not only just, but are necessary. The statement that these gentlemen applying were all graduates is not borne out by the facts, as may be seen by the appended statement:

Number of graduates applying, 80; passed, 51; failed 29.

Number of non-graduates applying, 54; passed, 27; failed, 27.

That such a large number of graduates failed is a matter of surprise and the conclusion is inevitable that the colleges, or at least some of them, are failing to teach those essentials which the board, an eminently practical one by the way, looks upon as entitling a man to practice. The examinations are thoroughly practical, so far as a technical examination can be, and as such have been commended by all similar boards. The truth is that to practice medicine nowadays requires more knowledge than it formerly did and if a man don't come up to the standard he simply has to go back and try again.

Now another thing, a doctor that rails at his profession and fails to recognize the great good it has accomplished for civilization, has back of it one of three things, or, possibly all three, and that is failure as a physician and consequent embitterment, never was a qualified practitioner, or else a crank who never loved his profession.

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CORRECTION:—Editor Dyer of the *New Orleans Medical and*

*Surgical Journal* requests us to remember that his journal has two editors and stating that the editor had married might lead some of the fair sex to imagine that he was off the carpet. Our good friend is extremely anxious that no such idea prevail and we herewith assure our readers that it was Dr. Chassaingnac who sailed away with a charming bride. May it be Dr. Dyer's turn next.

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I wish some one would gently whisper a word into the ear of the editors of the big daily papers and suggest to them that if they insist on having something in their columns in regard to matters medical to have at least a medical man read the fool thing for them before it is printed so as to avoid making the subject ridiculous with false or erroneous statements.

For example, the *Times-Democrat* among us down south seems to be unable to get out an issue without putting in some tale about medical things, and so far all of those I have read, not in a single instance was the thing new or in a large proportion was it true.

Of course it doesn't make any difference really what it does say, but some smarty will read it and worry one's soul out of him asking fool questions about fool statements.

If they must have a medical extract and abstract department, let us beg that they will get editorial assistance first.

A little knowledge is a dangerous thing; none at all is worse.

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A "Kissing Bug," so-called has been giving our northern friends some trouble lately. Its bite gives rise to quite a severe pbelgmonous inflammation, and in one case at Louisville has caused death. It is thought by some to be the new horse fly, created to go with the "Automobile". Be that as it may we in the south are content with our mosquitos and ask no immigration from Mr. "Kissing Bug."

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In another place in this issue is account of the commencement exercises at the institution for the blind at Jackson. It should be a source of great gratification to the members of the profession throughout the state that this institution has fallen into such good hands. Being a Jacksonian myself and fully

knowing the efforts made to disrupt the institution, I feel that especial praise is due Dr. Sims, coming as he did into a hostile field and undertaking the work in the teeth of the most contemptible and underhand opposition that a gentleman ever felt. But he triumphed over it all and just a reading of his paper, also in this issue, is enough to convince any sane man that it were time that a change took place in the old institution, and that he arrived just in time to save us from a scandal of non-competency.

Dr. Sims requests that all physicians in the state having a knowledge of the presence of blind children in their neighborhood to please at once write him, giving names and addresses of children or parents.

Success to the Blind Institute and its able superintendent. A vote of thanks not only on the part of the profession, but also on that of the parents of blind children, is due Gov. McLaurin for having the foresight to appoint a specialist to this very important position.

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## Abstracts and Extracts.

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**NUTRITIVE QUALITIES OF ALCOHOL.**—Middletown, Conn., June 13: At a meeting of the Middletown Scientific Association this evening Prof. W. O. Atwater, of Wesleyan University, reported the results of the experiments upon the nutritive effects of alcohol, lately carried out under his direction, upon a man in the respiration calorimeter.

Pure alcohol was administered with water or coffee. The alcohol was taken with an ordinary diet of meat, bread, butter, milk, sugar, and the like. The amount per day was equal to about two and half ounces of absolute alcohol, about as much as would be contained in five or six ounces or three average glasses of whisky.

Three important results were observed: First, the alcohol was oxidized, i. e., burned as completely as bread, meat, or any other food. Second, in this process all the potential energy of the alcohol was transformed into heat and muscular power. In other words, the body made the same use of the energy of the alcohol as of that of sugar, starch, and other ordinary food materials. Third, the alcohol protected the material of the body

from consumption just as effectively as the corresponding amounts of sugar and starch. That is to say, whether the body was at rest or at work, it held its own just as well with the one as with the other.—*The Sanitarian*.

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BLIND INSTITUTE.--INTERESTING EXERCISES.--ADDRESS BY LUTHER MANSHIP; AN INTERESTING PROGRAM WAS RENDERED.--Quite a large audience assembled at the Blind institute to enjoy the closing exercises of the past session.

Much progress has been shown in every branch of work, especially in the literary, musical and industrial departments.

The pupils seemed to take a great deal of pride in their several parts, and without exception, they acquitted themselves with great credit to the institution and with perfect satisfaction to the audience.

The literary compositions and essays were marked by a high order of thought and feeling, and the reporter was told by Miss Lusk, who presides over the literary department that they show the regular literary work done there, and were not specially prepared for the occasion. This is indeed creditable, for we always look for something "extra" on these occasions, and to be able at any time of the session to make a fine showing shows more than ordinary thoroughness in the course of training now being given the blind. One young man read a poem, his own composition, that abounded in chaste and beautiful sentiment. It was far superior to many a production that has found its way into the leading literary magazines of the day.

A young lady read an essay so finished and elegant that the question was at once asked if it were original. It was original and certainly reflected credit on her taste and genius.

The musical selections were well executed and show thorough training in that department. Miss Gaston and Prof. Pierson have done good work.

Many specimens of workshop handicraft were on exhibition showing how proficient even the blind become in various fields of industry, such as nice upholstering, broom and mattress making, etc., etc.

Miss Drane of Winona, by special request of the superintendent and the board of trustees, sang a lovely solo that was much enjoyed.



Hon. Luther Manship delivered an address, and, of course, everybody who knows this rare genius knows, it was bound to be good and entertaining.

Mr. Manship spoke beautifully of the work being done for the unfortunate blind by Dr. Sims in restoring and improving their eyesight, and also of the splendid character of teaching on the part of the institute faculty, which, he said, had shown itself in the many improvements and new methods during the session just closing. Altogether the exercises were abreast of those of any institution and reflect great credit on Dr. Sims and his competent corps of assistants. The following is the program as it was rendered :

Prayer—Rev. Mr. Sutton.

Serenade Waltz; Mandolin and violins—Messrs. Pierson, Pink and Walter English.

Recitation; The Little Philosopher—Frank Lee.

Song; When the Tide Come In—Walter English.

Reading; Eruption of Vesuvius—Miss Carlana Freeman.

Piano solo; Beggar Student Waltz—Miss Clara Alford.

Recitation; Uncle Josh's Favorites—Clinton Howell.

Violin solo; September—Walter English.

Recitation; Paddle Your Own Canoe—Albert Cox.

Violin duet; Just as the Sun Went Down—Chas. Winters, Edward Davis.

Essay; Truth is Stranger Than Fiction—Walter English.

Song; Larboard Watch—Messrs. Foster and Heckman.

Recitation; The Lost Chord—Miss Clara Alford.

Violin solo; I Dream of Thee—Pinkney English.

Essay; A Dream of Fairy Land—Miss Zelda Myers.

Piano solo; Silver Spring Waltz—Will English.

Essay; Disappointment—Pinkney English.

Maskerader's Waltz; violins—Messrs. Pierson and Walter English.—*Jackson Evening News*.

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THE WORKING TOOLS OF THE CRAFT.—Coincident with the onward progress of the medical art has been the advance in our knowledge of the cause of disease. As the practice of medicine and surgery has gradually but surely emerged from the darkness of charlatanism and empiricism and approached more nearly to the dignity of a science, the pressing demand for bet-

ter facilities and better "working tools" has been met alike by the skillful instrument maker and the modern pharmaceutical chemist. The surgeon of to-day has at his command a full armamentarium of ingenious instruments of precision, cunningly devised for certain specific purposes and upon which he can confidently depend. The modern physician also has been furnished with therapeutic instruments of precision, originated by the physiological chemist as a result of the close study of Nature's laws and elaborated and perfected by expert pharmaceutical skill. Contrast for a moment the "working tools" of the physician of a hundred years ago with those of the practitioner to-day; the bolus and nauseous decoction as against the dainty tablet and the palatable elixer. Up to this point the modern surgeon possesses no advantage over his medical confrere as far as his "working tools" are concerned; but here the parallel ceases. The surgeon, when he needs a new scalpel for an important operation, examines the stock of a reputable dealer and personally selects an instrument of the best quality obtainable. He sees it, handles it and assures himself that it is well made and properly tempered. If perchance the knife is not as represented he soon discovers it, and promptly discards it for one which is more satisfactory and reliable. The surgeon not only *personally selects* but *personally employs* his instruments, and therefore cannot be deceived in them. But how about the equally important "working tools" of the physician, *i. e.*, the remedies which he orders for his patients? After a series of clinical experiments with various remedies of a certain character he comes to the conclusion that one particular preparation gives him the best therapeutic results and that it will hereafter become one of his trusted "working tools." Take for instance Pepto-Mangan "Gude," the value of which almost every modern practitioner is now familiar with. The physician has learned from experience just what this particular remedy will accomplish; he knows its advantages, limitations, indications and dosage, and prescribes it in properly selected cases, with full confidence in its action and effects. Just here, however, the physician *loses control of his "working tool"* unless he is positively certain that his prescription will be filled exactly as specified. It is, of course, manifestly impossible for the busy physician to personally follow up every prescription in order to insure himself that some inferior and more or less worthless substitute is not dispensed in place

of the article prescribed, and he must therefore adopt some other means to prevent this reprehensible practice. There are three ways in which the physician protect himself and his patient against this unwarrantable, inexcusable, and dishonest interference: (1) Let him be certain that his prescriptions are filled only by pharmacists known to him to be above such disreputable catchpenny practices. (2) Specify plainly and unmissably the particular preparation desired. (3) When possible order an original unbroken package. We feel strongly about this very common and nefarious practice of substitution, which is injurious alike to the welfare of the patient and the reputation of the physician, to say nothing about the injustice to the reputable manufacturers, who have spent brains, time and money in putting valuable and eminently eligible "working tools" into the hands of the profession.

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Dr. Wm. A. Evans, continuing the discussion, said it was not his purpose to say anything relative to the methods by which the work of the society is to be accomplished. He desired to speak to three propositions: 1. Tuberculosis is the most widespread and deadly of all diseases. 2. Its economic importance. 3. The conditions arising from tuberculosis are remediable. He said in part: From deaths from all causes throughout the world sanitarians are agreed that approximately one in seven is due to tuberculosis. Hirsch says that each year throughout the world five million people die of this disease, the nature of which is understood. It is a disease which is preventable. According to the census of 1890, 102,188 people died of tuberculosis in the United States during that year. Recognizing the fact that statistics on the subject of tuberculosis are always below proper statistics, and recognizing the advantage, if not necessity, of concealing deaths from this fell disease, it is easy to be seen that the number of people who die from tuberculosis in the United States each year must reach 150,000. This is a safe estimate. According to the statistics of Zubiana, there die each year in France from 150,000 to 200,000. In Germany, according to the statistics of Leyden, the number of deaths attributed to this disease each year is 170,000. According to the statistics of Tatham, endorsed by Ransome and Thorne, there die annually in England and Wales, 60,000 people, or 241 for each 100,000; Vi-

enna, 450 for each 100,000; Buda Pest, 646 for each 100,000. In Philadelphia the annual death rate from this disease reaches 2800, or 11.06 of the total death rate. In New York the annual death rate from tuberculosis is 3500 approximately. In Chicago from 1857 to 1896, 39,000 people died from this disease, thus constituting one-tenth of the entire mortality of the city. In the last six months, according to the statistics of the health department, there were 1552 deaths from tuberculosis, or one death to 8.4 per cent. According to the statistics of France, Austria, Germany and Italy, approximately one-fifth of the entire death-rate of those countries is due to consumption. According to the Woman's Commission of Germany, at any given moment one out of fifty are either subject to or are suffering from this disease. On the basis of one out of sixty inhabitants, this means that to-day there in these United States 1,100,000 people suffering from tuberculosis. Figured on this basis, it means that in Chicago tonight there are 30,000 people who are affected with this disease. Biggs and Prudden of the health department of New York City say it is within the range of probability that there are 20,000 people walking the streets of New York serving as foci of infection for the spread of this infectious, contagious disease.

Dr. Evans then compared the death-rate from tuberculosis with the death-rate from other diseases, and gave as following: Smallpox and scarlet fever, 30 to 1; typhoid, 16 to 1; diphtheria, 8 to 1; all combined,  $4\frac{1}{2}$  to 1. Tuberculosis kills thirty times as many people in Germany as do smallpox and scarlet fever combined. It kills sixteen times as many people as does typhoid fever; it kills eight times as many as does diphtheria; it kills  $4\frac{1}{2}$  times as many as smallpox, scarlet fever, typhoid and diphtheria combined. According to the statistics of Laveran, from 1832 to 1854 cholera killed 57,335, while tuberculosis kills the same number of people in one third of one year. According to the figures of Celli for Italy from 1865 to 1893, cholera killed 214,657 people, and during the same length of time tuberculosis killed 2,000,000 people. Says Anders: "I have found from an examination of the literature and of the available official statistics, that in all great cities in which active measures have been taken to obviate the spread of tuberculosis, there has taken place a decided, though gradual decrease in the death-rate from this fell disease."

All sanitary legislation is based on antecedent education,



and this is the philosophy of our existence tonight. There can come no legislation capable of coping with this disease until such a public sentiment has been created, until such a public view has been established that he who makes law will read what the sky contains for him. Ignorance is responsible for the conditions that exist. To awaken public conscience we must awaken public intelligence, and the scope of this Society is to awaken public conscience by reason of an awakening of public intelligence. A disease so well understood is one which can and surely will be combated. Practically every bit of laboratory work has been gone over in connection with this disease. The laboratories must furnish us facts that we can make all potent and all-powerful

Dr. Evans then concluded by quoting the words of the Prince of Wales in opening the British Conference on this subject. "You tell me that tuberculosis is a preventable disease. If preventable, then why not prevent it."—*Journal of the American Medical Association*.

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SYMBIOSIS OF BACILLUS ICTEROIDES AND A FUNGUS. Brazil Medico (Rio), May 22: J. B. de Lacerda.—The fact casually mentioned by Sanarelli, that the bacillus icteroides frequently degenerated in the ordinary culture-media, while it seemed to thrive particularly well when a certain fungus was growing on the medium with it, has been studied by Lacerda who confirms this fact, and suggests that it may explain a number of the contradictory phenomena in the life bacillus. The fungus seems to be a certain aspergillus, which is killed by cold weather, and the bacillus possibly only becomes pathogenic when combined with this fungus, which would explain why yellow fever disappears with the advent of cold weather, although the bacillus does not lose its virulence submitted to the very low temperatures, as Sanarelli established. It also explains why the cultures sent to Europe to be tested proved inert and non-virulent, as they had none of the fungus with them. In tubes containing some of the fungus, the bacillus icteroides gave every evidence of vitality and virulence in cultures a year old. The fact also explains why old, mouldy houses and vessels are the peculiar haunts of yellow fever.—*Journal of the American Medical Association*.

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SYSTEMIC REMEDIES IN DISEASES OF THE TEETH.—In a

paper recently read before the Philadelphia Academy of Stomatology, Dr. Leo Greenbaum (*International Dental Journal*, May) calls attention to the valuable aid that may be lent by internal medication to local measures in painful conditions accompanying dental diseases. He speaks highly, in hypersensitive dentine, of the excellent results obtained from the use of asafoetida, and gives an instance in which the administration of two three-grain asafoetida pills, the first an hour and the other half an hour before the time appointed for operation, induced ready submission to operation in a patient so sensitive that any exploratory manipulations has been previously out of the question. The coal-tar derivatives, acetanilide, phenacetine, etc., are very useful in quieting the reflex face pains of pulp diseases, and giving time for the arsenical or other local application to produce its effect. The author particularly praises the combination of small doses of synergists of this character (as advocated by Dr. Scheinkman in our issue for February 18th). It is obvious that physicians, especially in country places, can do much to relieve the suffering of such patients without the too commonly resorted to treatment of extraction, thus gaining time till the services of a dental surgeon available.—*New York Medical Journal*

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## Medical News and Miscellany.

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THE SICK ROOM AND THE NURSERY. SUSTAINING LIFE IN INFANTS AND IN THE DEBILITATED, BY A. R. GRAY, M. D.---

It is admitted by physicians that unless the strength of a patient can be sustained, his therapeutic skill is in vain. In a large proportion of infantile diseases, the most important consideration in the question of keeping up the strength of the little sufferer, and where this can be done, recovery is generally only a matter of time. However, where, through malnutrition the patient becomes enfeebled day by day, when strength wastes away and the infant loses flesh, then the skill of the ablest practitioner becomes impotent. The same is true of the aged, of the chronic invalid—of all those whose organs of digestion and assimilation are so enfeebled that the whole body becomes anemic and enervated. The desideratum in all such cases is an easily

assimilated food, thereby husbanding the strength of the patient instead of diverting it to the difficult work of digestion. Only when such food is furnished can the patient gain strength and flesh, without which no material progress can be made.

There are many foods offered for just this purpose, but the majority have been proved to be worthless or even injurious. Some possess qualities worthy of notice, and the best of all is known as Imperial Granum, made by the Imperial Granum Company, of New Haven, Conn., and sold by druggists everywhere.

We had lost faith in "foods for infants and invalids," having examined so many with a result that their claims to the physician's notice were to frequently based upon proof which under impartial tests vanish into nothingness, but the Imperial Granum we do not hesitate to say has met the most crucial tests, and amply demonstrates its rights to be known as the food for infants and invalids *par excellence*. An eminent chemist of New York City assures us that it contains a larger proportion of strength-giving, flesh-making elements than any such food product that he has ever analyzed. He declares that it is much more assimilable than any other that he has ever examined. It furnishes an abundant proportion of the elements that sustain life, and in a form that enable such elements to be speedily digested and assimilated. Imperial Granum is, indeed, "Nature's product" for infants and the debilitated. As a flesh-forming, nerve, muscle and bone-making food it is unexcelled. The elements which babies need beyond all else are readily furnished by Imperial Granum in the form best adapted to their delicate organizations. In fact, it is the best food for infants and invalids that has ever come under our investigation, and as such it justly receives the heartiest editorial endorsement of the *American Journal of Health*. We would call the attention of hospitals and sanitariums to its great worth, and of the medical profession to its value in cases where every other food is either rejected altogether or, if injected, fails of digestion and assimilation. Imperial Granum will meet every requirement and prove its right to supremacy in its line wherever it is used.—*American Journal of Health*, New York, May 13, 1899.

SANMETTO IN GENITO-URINARY DISEASES AND AS A RE-BUILDER.—I have used Sanmetto in a great number of genito-urinary diseases, also as a re-builder of strength throughout the

genito-urinary tract, always with the happiest results. This is the first and only testimonial I have ever given in twenty years active practice of medicine.—C. H. ECKERT, Marion, Ind.

THE NEW ORLEANS POLYCLINIC THIRTEENTH ANNUAL SESSION OPENS NOVEMBER 20, 1899, CLOSES MAY 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, La. March, 1900.

SIGHT-SEER'S HEADACHE:—A five-grain antikamnia tablet prescribed for patients before starting on an outing, and this includes anybody who is out in the sun and air all day, will entirely prevent that demoralizing headache which frequently mars the pleasure of such an occasion. The nervous headache and irritable condition of the busy business man is prevented by the timely use of a ten grain dose. As a cure and preventive of the pains peculiar to women at time of period, antikamnia is unequalled and unaccompanied by habit or unpleasant after-effect. Pain of any description caused by suppressed or irregular menstruation, will yield to two five grain tablets. This dose may be repeated in an hour or two, if needed.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION will hold its Ninth Annual Meeting at Washington, D. C., September 19, 20, 21, 1899. Willard's Hotel has been chosen for the headquarters and special rates have been made for all interested in this meeting. Many able papers have been promised and a very successful scientific meeting is assured. The committee also promises a very pleasant social program, including a reception by the president of the United States, an excursion to Mt. Vernon, Arlington and Alexander, a Buffet lunch to be served at Alexandria, an evening visit to the Congressional Library to be viewed under electrical illumination. Provisions have been made to visit the war, state and navy departments, the United States treasury and other public buildings.

Superintendent Sims of the Blind Institute at Jackson earnestly requests all physicians throughout the state to send him the names of all blind children in their respective localities in order that steps may be taken to induce the sending of the children to the institution at an as early age as possible, the best results being obtained by this method. It is the duty of every doctor in our state to aid and assist in every possible way this noble institution which under its present able manager has done such noble work and has so fully broadened its scope.

From the *Medical Record* we learn that for the week ending



June 10th, there were eighty-five deaths from sunstroke in New York. This is a larger death rate than we had in the state of Mississippi from yellow fever in 1898 and but adds force to the oft-repeated statements that yellow fever is not the dreadful affair that it once was, and now is in Vera Cruz. By sanitation we can crush it.

Dr. W. N. Alsop of Shaw, Miss., was killed by Mr. H. P. Williams at Cleveland, Miss., on the 12th of July in a street fight.

Dr. N. L. Guice of Meridian died of heart disease on July 7th, and was buried in Fayette on the 9th.

A female physician in San Francisco recently lost her life under peculiar circumstances. A burglar alarm in her house was heard to go off, so she ran to a window to call for aid, which on arriving, found her dead from fright.

The Brooklyn faith healer who permitted a patient under her care to become gangrenous and took no steps to relieve her, has been sentenced to five years imprisonment. A few more of such righteous convictions and the semi-religious craze will have sense knocked into it.

Some of our Mississippi "chicken-pox" has gotten into Indiana and has been accused of turning into smallpox. All this happened at some negro school in Indiana and but serves to show how foolish we doctors can be at times. Grown people very rarely ever have chicken-pox, hardly ever the second time, vaccination taking is no proof that a patient just recovering from a suspicious sickness did not have smallpox, varioloid is possible a second time as is also smallpox, though rare in both instances. Look before you leap and look long.

Soft coal is accused of being the cause of the famous London fogs and strong efforts are being made to abate the nuisance. May they succeed as this has been one of the most disagreeable features of life in the metropolis.

The American Surgical Association at its recent Chicago meeting elected the following officers for the ensuing year: President, Dr. Weir, New York; first vice-president, Dr. Nancrede, Ann Arbor; second vice-president, Dr. Souchon, New Orleans; secretary, Dr. Burrell, Boston; treasurer, Dr. Fowler, Brooklyn; Recorder, Dr. Willard, Philadelphia; member of the council, Dr. Keen, Philadelphia.

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# SANATORIUM

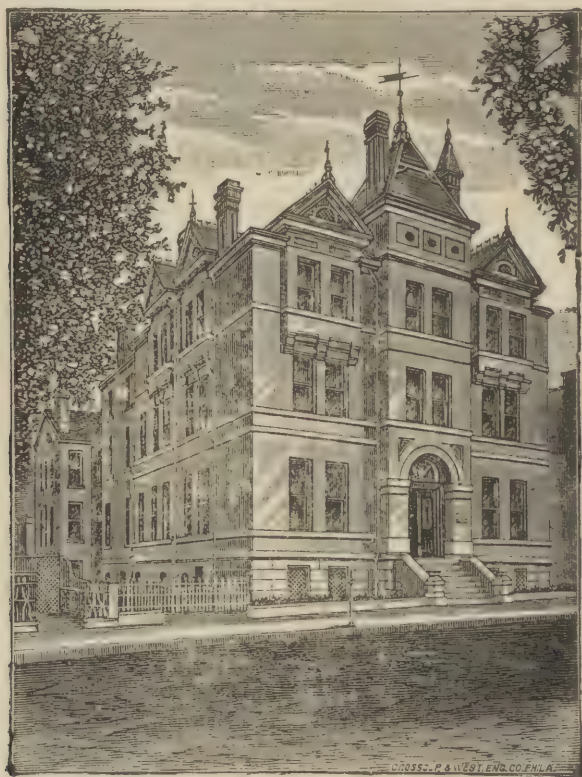
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## DISEASES OF WOMEN.

Drs. MAURY & MITCHELL,

111 COURT STREET.

MEMPHIS, TENN.



This building has been erected especially as a Sanatorium for the treatment of the Diseases of Women. It has been constructed with great care and in accordance with the most approved principles of sanitary science. Its equipment with all the appliances necessary for the treatment of disease is complete. It is the endeavor of those in charge to make this a temporary home, as well as a place of rest, where invalids will find every comfort they may desire. Physicians who wish to send patients away from home for the surgical and medical treatment necessary in this class of diseases, may feel confident that everything possible will be done here for their restoration to health.

For further information DR. MAURY can be addressed at the Sanatorium.

# The Journal

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## Mississippi State Medical Association.

VOL. III.

SEPTEMBER, 1899.

No. 6

### Original Articles.

#### ✓ Acute Lymphadenitis.--Report of a Case.\*

BY L. F. FOX, M. D., WATER VALLEY, MISS.

One of the most common conditions met with by the physician, is enlargement of the lymphatic glands, and as this condition is in most if not in all cases, a symptom rather than a disease, it often involves to a large extent the diagnosis of the case in hand

We find this condition in all the varying degrees of severity from the small and painless "kernel" in the groin, due to an insignificant irritation of the foot or lower limb to the sloughing and gangrenous bubo accompanying syphilitic chancre or typhoid fever; and from the so-called idiopathic enlargement of the superficial lymphatic, due to exposure to cold, to that deadly and most dread disease, bubonic plague.

We find enlargement of the lymphatic glands the question as to the cause for this condition naturally arises in our minds; in other words we have a symptom and we look for the disease to which it belongs. If a single gland or a group of glands in one locality are affected, we look for some source of irritation or infection in the region supplied by the lymphatic vessels emptying into the affected glands. In some instances, irritation of a

\*Read before the Mississippi State Medical Association, April, 1899.

corn on the toe or the rubbing of an ill-fitting shoe causing a painless non-inflammatory swelling of the inguinal glands, which quickly subsides when the source of irritation is removed. Or, if there is an abrasion of the skin, be it ever so slight, which becomes infected and allows of septic absorption, we have enlargement with inflammatory action, and frequently suppuration of the affected glands. On the other hand, if we have a general enlargement of the lymphatic glands over the entire body, we expect to find some constitutional disease, either hereditary or acquired, as a cause of the condition. It may be due to scrofula, which is regarded by most authorities as a form of tuberculosis, syphilis, Hodgkins' disease, glanders or plague. In some cases we find both constitutional and local disease as a cause for the condition; as in cases of scrofulous tendency with a point of infection from which absorption is taking place. It is the importance of lymphadenitis as a symptom, that I wish to emphasize in the following case: L. B., a well developed youth of 11 years, florid complexion, had enjoyed previous good health, mother healthy, father had suffered from asthma and bronchitis; was struck on the head with an axe April 1st, 1899, making an incised wound of the scalp and outer table of the skull, about one inch to the right of and nearly parallel with the sagittal suture and extending within half inch of the coronal suture backward about two inches. He was not knocked down, but was to some extent dazed by the blow, and complained of numbness of the left hand and forearm which passed off in about 15 minutes; vomited soon after receiving injury. I saw him with my friend and associate, Dr. Gant, about 45 minutes after the receipt of the injury.

He was resting quietly with no pain, nausea or other subjective symptoms. The only objective signs discovered were a slight dilation of the pupils and slight deviation of tongue to the right. The wound was a clear incision of both scalp and bone, but did not, so far as we were able to determine by careful exploration, extend through the inner table. There was no depression nor was the bone movable on either side of the incision. The scalp was shaved for some distance around the wound, and the incision both of soft parts and bone thoroughly cleansed with sterilized water and antiseptics, and packed with boracic acid and the edges of the scalp wound brought together with one suture about the middle leaving both ends open for drain-



age. Several layers of iodoform gauze were placed over the wound and absorbent cotton over this held in place by a bandage. The patient was ordered kept quiet in the recumbent posture and a saline laxative given in the evening. He rested comfortably and no fever developed until the afternoon of April the 4th, when he had a temperature of 99 degrees Faranheit. The dressing was removed on the following morning and the wound was found to have healed perfectly with no pus, no soreness or other signs of inflammatory action. His temperature however, remained at 99 to 99.5-10 until April 8th. During this time he complained of nothing but a slight sore throat and begged to be allowed to sit up. On the morning of April 8th I found him suffering with a rather severe acute tonsilitis with a temperature of 102. Accompanying this there was enlargement of the cervical, axillary and inguinal lymphatics. While there was very perceptible enlargement of all these glands, it was particularly marked in the cervical region. All the superficial glands of this region were involved, those of the Parotid and upper sternomastoid region of the right side where several glands lie close together, forming a swelling the size of a large hen egg which was tender to the touch and presented a slight redness of the overlying skin. The change of the glands could be traced by lightly running the finger down the side of the neck in front of and behind the sternomastoid muscle. The swelling was not so marked on the left side but was plainly visible in the Parotid region. He was given a mercurial purge followed by iodide of potassium in five grain doses three times a day. He was also given an astringent and antiseptic wash for the throat and tincture of iodine was applied over the swollen glands as a counter irritant. The temperature was found to be 101 the following morning and there was a gradual decline until April 14th, when he had no fever and the glands were somewhat softer and diminished in size, the soreness having disappeared. When I last saw him April 16th, the tonsillar inflammation had about subsided and the glandular enlargement was rapidly passing away.

The points which have been of most interest to me in this case, are the sudden appearance of a general lymphadenitis, and the developement of this condition following the head injury, raising the question whether or not the latter had any etiologic bearing on the case.

In nearly all cases, where we find general lymphadenitis, ex-

cept perhaps in glanders and bubonic plague, there is a gradual enlargement of the glands usually beginning in one region and slowly extending over the entire body: while in this case, so far as I could ascertain, the glands of the entire body became affected within twenty-four hours. My attention was not called to the condition until the glands of the cervical region became visible and certainly they attained their unusual size in less than twenty-four hours. The first conclusion that would naturally suggest itself to our minds in such a condition following an injury of any kind and especially where the glands receiving the lymphatics from the region of the injury are more acutely inflamed than in other parts of the body, is that the injury is the cause. There are several points however which convinced me that this was not true in the case under consideration: first there was no evidence at any time of septic products in the wound by which the glands could become infected. No pus developed and there was no evidence whatever of inflammation at the time the dressing was removed or afterwards. We sometimes find in scrofulous patients a simple hyperplasia of the lymphatic glands due to irritation in a neighboring part, but not a true inflammation of the glands unless there is some source of infection: second, the glands of the left side of the neck were involved in this case, while the injury was on the right side of the head. As we know, the lymph flows downward in this region, it could not infect the glands of the opposite side of the neck unless there was enough septic material to infect the whole system causing septicemia: third, the gland affection can be more reasonably accounted in another way, viz: from the throat trouble. We know that only those glands of the parotid and upper sternomastoid region receive directly the lymphatic vessels from the pharynx and tonsils and these were the most acutely inflamed of any of the glands of this region. Yet we can account for the infection of the others by the fact that the lymphatic vessels anastomose with each other very much as do the blood vessels and the glands not in direct line with the point of infection become infected secondarily so to speak. In Keating's *Cyclopedia of Diseases of Children*, we find the following: "Irritative matters passing up the lymph stream are by no means always arrested in the nearest gland or at least do not always cause inflammatory enlargement. \* \* \* The infective particles may travel apparently by a bi-route and infect glands in

communication with those which drain the area in which the primary lesion is situated."

The glandular enlargement in the axillary and inguinal regions can be accounted for in no other way than by assuming that the patient is scrofulous. It will be remembered that his father suffered from bronchitis and asthma according to the statement of his mother which may mean tuberculosis. There seemed to be no inflammatory action in the axillary and inguinal glands. It seemed to be rather a hyperplasia of the gland structure so often seen in scrofula. In these patients we often see simple hyperplastic enlargement of the glands due to exposure to cold. Then could we not have this same character of enlargement of the glands due to the febrile disturbance with a true inflammation of the glands of the neck caused by absorption of septic material from the throat? This seems to me to be the most feasible solution of the problem.

### **Pneumonia; or, Commonly Known as Lung Fever.\***

By W. W. ROBERTSON, M. D. McCOMB CITY, MISS.

The subject of my paper is Pneumonia; or, commonly known as Lung Fever. I do not feel myself capable to do full justice to this subject only so far as my practical experience goes.

The chief symptoms of Pneumonia are: Pyrexia, accompanied by pain, sometimes obtuse, at others pungent, in some part of the thorax; Pulse more or less quick and hard, according to the violence and extent of the local disorder. Most generally in acute cases we find that the patient has had a chill (adult) or convulsion (children), and this symptom, I dare say, will develop in the early part of the morning, usually between 2 and 6 o'clock. Pains aggravated by the cough which, with dyspnoea) exists throughout this disease. At first the expectoration is difficult and painful, but in the course of a few days it becomes free and the oppression of breathing is mitigated. The sputa are generally viscid, adhering to the bottom of the vessel, transparent at first, then mixed with small bubbles of air, and then having a red or rusty color mixed with blood. When the inflammation instead of going off by resolution passes on to supuration, rigors are experienced. The respiration becomes more

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\*Read before the Mississippi State Medical Association, April, 1899.

oppressed, but less painful and a sense of weight is felt in one or both pleurae. Pneumonia may also terminate by gangrene, (but this rarely happens) by induration and by hepatization.

Physical signs: First stage—Engorgement (or splenization) spleenlike in appearance. Diminution of the sound is generally observed over the affected part or percussion. Auscultation exhibits unequal, dry, crepitating rale which is best heard at the close of a deep inspiration, and on coughing. The respiratory murmur is intermingled with the crepitant rale, or it may be absent. In the neighborhood of the affected parts, it is natural or puerile. The voice and cough are rather more resonant than usual.

Second Stage or Hepatization (Rage) (Red): When hepatization has occurred, the motion of the affected side is impeded and immediately above the sternum, and in the corresponding triangular space, on either side, there is often an evident depression. Percussion is dull over the affected part in every position of the patient. On Auscultation the crepitation is found to be replaced by bronchial respiration. The respiratory murmur is louder in the other portions of the lung, the voice and cough are more resonant and the heart's action is more distinct.

Third Stage: Hepatization (Grise) (Gray): When suppuration supervenes the same signs persist; but usually the voice and cough are less resonant, and a coarse mucus rale is heard. When gangrenous or suppurative cavities are found they present the ordinary signs. In adults the pulse may range from 80 or 90 to 120; in children it is generally more rapid and may rise to 200 and upwards. Extreme rapidity is generally associated with feebleness, and not unfrequently with irregularity, and is hence to be regarded as an unfavorable sign. In the beginning the pulse is often somewhat full and strong, sometimes full and di-crotous. During convalescence it may fall below the normal frequency. While pneumonia is in progress the systemic veins are apt to become more or less overloaded and the surface assume a dusky hue. The tongue is more or less coated, and in some cases tends to become dry and brown and sordes may accumulate upon the teeth. Thirst is pretty constant and there is loss of appetite. The bowels vary: sometimes constipated; sometimes on the other hand there is more or less profuse diarrhoea, and this may be dysenteric in character. Jaundice is sometimes



present during the progress of pneumonia. It is said to occur most frequently in those cases in which the right lower lobe is affected. There is, however, no more necessary connection between right pneumonia and jaundice than between left pneumonia and it. The urine is scanty, dark-colored and of high specific gravity, containing a diminished quantity of chloride of sodium and a great excess of urea and uric acid with a tendency to the deposition of urates. Sometimes also it contains a little albumen and hyaline, granulus, or epithelial casts. During convalescence it becomes much more abundant, pale, of low specific gravity, and the urea undergoes diminution while the chloride of sodium increases. The face is more or less flushed in the early period of pneumonia, may be at the same time somewhat livid. The skin is frequently hot and dry; but profuse perspirations are not uncommon during the progress of the disease, and generally attends its decline. Herpetic eruptions about the lips and alae nasi is of very common occurrence. Delirium often comes on early at first, being limited to the night, but subsequently becoming more or less constant. In some instances, especially in cases of persons who have been given to drink, the nervous symptoms very soon assume all the character of delirium tremens. In fatal cases delirium is apt to pass into coma. The temperature in pneumonia rapidly rises from the time of invasion, so that within a few hours, at most perhaps twelve, it has almost attained its maximum; this may vary from 100 to 106, or even more. Thenceforward the temperature remains high, probably increasing somewhat, with morning remissions and evening exacerbations until the time of commencing convalescence, when it either suddenly or greatly falls. In the former case the temperature may sink to normal or below it in the course of twenty-four hours. Occasionally in fatal cases the temperature rapidly rises before death.

The prognosis must be guarded. It is not a disease which we can always subdue. Great extent of inflammation, very considerable oppression, orthopnoea and difficult expectoration are unfavorable symptoms. The most active treatment is of course necessary.

#### TREATMENT.

There are few diseases for which so many opposite plans of treatment have been employed with reputed success, as for pneumonia. It is a disease, too, which more perhaps than any

other, has on this very account been appealed to in proof of the change of type of disease. From the time of Laennec to about the middle of the present century almost implicit reliance was placed in the combined use of blood letting, antimony and mercury. Since then, specially dating from the time of Dr. Todd, the remedial agents have been to a very large extent discarded, and have become replaced by the free exhibition of alcoholic stimulants, etc., many indeed now regard all medicinal treatment as of little or no importance; and it is quite certain that a large number of even severe cases recover perfectly if left to nature and the nurse. In the majority of cases of the idiopathic disease it is probably quite sufficient to keep the patient in bed in a comfortable well-ventilated room of medium temperature. And I would say just here that there is a great deal dependent upon this point: to relieve thoracic pains with mustard plasters and warm applications such as flax and meal poultice with the addition of salt and mustard. I frequently use the Ammoniated liniment freely, following it with the poultice; to assuage febrile thirst by the exhibition of soda-water, orangeade or lemonade; to support strength by the frequent administration of milk or gruel, or some equivalent nutritious fluids such as Ducro's Elixir (Beef and Brandy) or liquid Peptonoids, with beef, milk and gluten, and to relieve from time to time, by simple measures, diarrhoea or constipation, and other remedial derangements of the various organs; and then a convalescence comes on to give vegetable tonics, and gradually to improve on diet in respect both of quantity and quality. It is doubtless true, however, that in many cases the above plan of treatment may be judiciously supplemented by other measures, for example: A typical case of pneumonia does not require an expert for diagnosis; you may be called to a case and at a glance you will say another case of pneumonia—why? Because we find a very restless patient with anxious expression on his face, quick and difficult breathing, with an occasional sigh, parched lips, great thirst, pulse quick and bounding, temperature 103, 104 or possibly higher. Now what is to be done? I would say begin with an arterial sedative; slow the heart's action as quickly as possible; by doing so you lessen the taxation of the heart and lungs, by controlling the rapid flow of blood, consequently you are controlling the inflammation. Expecto-  
rants, such as ipecac, or antimony, in small doses may possibly aid those cases in which there is frequent and troublesome

cough, with difficulty of expectoration; a small quantity of opium may be serviceable to relieve pain and keep patient quiet. Now as the disease progresses your patient is growing weak and very nervous and the pulse becomes very quick and weak and possibly delirium is established, and in some cases the patient presents the general symptoms of delirium tremens. If this be the case, diffusible stimulants such as Ammonia and Alcoholic preparations in quantities to be determined by their effects are indispensable. I may add that with the object of reducing temperature, various agents have been recommended; such as coal-tar preparations, in repeated dose according to the indications.

Of course we cannot treat all cases alike, as you gentlemen are perfectly aware; to sustain the heart's action by administering Strychnia, Strophanthus, or Digitalis. Especially would I give strychnia in the third stage in connection with Ducro's Elixir. In some cases I would use a fly blister directly over the seat of the disease, and would say that I have used them very successfully, and believe that when they are indicated nothing can take their place. Do not understand me to say that I blister in any and all cases, just because it is pneumonia.

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### Some Medical Points.

By M. J. LOWRY, M. D., MERIDIAN, MISS.

It was my intention to call the attention of the profession throughout the state to the great injustice we are laboring under, and if possible have it remedied by the last legislature, but circumstances prevented. I was under the impression until I tested the fact that we as medical men had a law that guarantees to us the fulfilling Art. III, Sec. 2, of the Code of Ethics, which says; secrecy and delicacy, when required by peculiar circumstances, should be strictly observed, and the familiar confidential intercourse to which physicians are admitted in their professional visits should be used with discretion, and no infirmity, disposition, or flaw of character observed during professional attendance should ever be divulged. There is a great deal more said in this section, but this is sufficient for my purpose now. The state of Mississippi grant the legal fraternity absolute secrecy between client and attorney. No court, no judge can violate this confidence, nor can a lawyer willingly testify against his

client. Under no circumstance will the court allow such, but you gentlemen, the doctors, have no such right, no such law, any doctor in this state can be summoned to court, and if he refuses to testify he will be sent to jail, there to remain till he does testify. There are no ifs or ands, he has to testify to everything that has occurred in the sick room, everything that has been confided to him as the family physician - the lawyer can ask him and he has tell in open court anything that he knows or believes from the symptoms to be a fact, or he can perjure himself, or he can go to prison: He has not only to testify in court as stated, but you are then compelled to testify as an expert on the condition of your patient against your patient's interest. As an illustration I will cite a case I was forced to testify in viz: The wife of one of my patients brought suit against her husband for divorce and possession of their child. The husband resisted the suit, claimed that his wife was addicted to the alcoholic habit, and was not competent to take care of the child, that when she was under the influence of whiskey she was cruel to the child, and his opposition to her whiskey habit, was her only cause for wanting a divorce. As I was the family physician, I was called to testify, in order to prove the alcoholic habit. I protested with the husband and his attorneys and assured them that I would not testify, and could not be forced to be by any law. I protested the judge (Hill), or chancellor.

I stated to the judge that if I testified in this case I would be violating the code of ethics, that I knew nothing only what had occurred during my attendance in the sick room as the family physician, I therefore asked the judge to excuse me. The judge explained to some extent that he was put there to execute the law, not to make law, and I would have to testify. He regretted that there was no law to excuse my testifying. I could not afford to go to jail, so testified, and have not had a call to that patient since. I have lost a good paying customer and have been made by law to violate the secrets of the sick room, something no physician should do. Why should there be such a difference in the two professions? The confidence of the physician should be more sacred than any other, and until I consulted the best lawyers, I thought there was a law for our protection, but there is none, The judge said that if the lawyers were made to testify against their clients, that what a client confided in his attorney could be forced from him by the attorney on the oppo-



site side. I failed to see the difference. There are some states that have such a law. We should have one.

Who should prosecute for violations of the Medical Practice Act? The law is being violated in all the counties of the state, and yet no one takes a step to uphold the law. If it were for any other violation—crap shooting, for instance, the violator would be drawn before the bar of justice, they would be hunted down, and hunted up at night in their hiding places, they dare not do it openly, as the Medical Practice Act is violated. What is everybody's business is nobody's business—who is to furnish to pay the lawyer's fee? With us in Meridian we have generally had to take up a subscription among the doctors to pay these expenses. It is hard to get a true bill against anyone violating the law before the grand jury, the quack or anyone else. The law is being trampled on and some one should see that it is upheld, respected and honored. When I was on the state board of health, I deemed it my duty to furnish the funds to prosecute the offenders. One case I call to mind, a woman was swindling the poor classes, it was reported to me with the proofs. I made affidavit against her, paid a lawyer to convict her, the justice fined her, she could not pay the fine and said she could not go to jail. Her lawyer who had received his fee, got up a petition, had the witnesses (who were doctors) to sign it, and came to me to do likewise, which I refused. The woman claimed to be pregnant, but she had passed the climateric period. Her fine was remitted and the quack was turned on the public, I was out my ten dollars, and the defending attorney had his fee.

A lot of quacks calling themselves "Boston Doctors," with a half-side of the daily paper containing their cures (they were high-priced quacks, too, for they would not prescribe for less than \$15.) We gave a negro five dollars, and he paid the same to the quacks, with the promise of the balance in a day or two. We then had the Boston doctors arrested, they procured a lawyer, deposited \$100.00 for appearance in court the next morning and during the night they skipped to Alabama. The court and all the officers got their costs, the balance went into the county treasury, and were out our ten dollars and could not get any refund out of the bail money. I could go on enumerating cases where we have spent our money prosecuting cases in the justice's courts and the fines all go into the county funds—if any are collected—but this is sufficient to show you that there is a

defect in the law and that it ought to be remedied. It should be the duty of the members of the state board of health in each congressional district to look after these matters, with the aid of the health officers of the county. They should be looked after by the county health officers just as a case of smallpox, or any other contagious disease is looked after. First, the funds derived from the fines be kept for prosecuting these cases and not go into the general county fund *for educating negroes how to vote*. In prosecuting these violators you must furnish the proof that these quacks prescribe, accept pay—the mere offering to practice or offering to cure will not convict; you must furnish the actual proof. To the committee of public health whose duty I believe it to be to look after necessary legislation, I appeal to you to make some effort to have some change made in these laws. Do not let us sit by and be imposed upon nor allow what laws we have to be trampled upon, nor allow the profession to be summoned to court and forced to violate the code. Why is it that the lawyers have their privilege rights granted them? Because they have worked the matter up, and have had laws passed to suit them. They are not seeking to protect the doctor, especially if they want to use him as a witness.

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### The Mind in The Presence of Disease.

By L. M. GUESS, M. D., CRYSTAL SPRINGS, MISS.

The Psalmist exclaimed in the ages past, "I am fearfully and wonderfully made." Made with a dual nature, with a dual soul and body intimately, mysteriously and inexplicably connected. Made from the dust of the earth into whose nostrils God breathed the breath of life and man became a living soul. Whether God made him in the morning of creation a full grown man with all his organs and everything complete and fully developed, and then actually breathed into his nostrils a part of His spirit, the breath of life, and he became a living soul, a human being, seeing, hearing, moving, acting, thinking, or whether as Darwin would have it—he evolved from protoplasm, a cell, an entozoon, then a wiggle-tail, then a frog without a tail, then a monkey with a tail, then a man without—well, the semblance of any other creature on earth that God did make, it matters not for the subject under consideration. We know how he gets here now. We know

that he is conceived in the hidden recesses of a mysterious connection—whether in wickedness we cannot say—is deposited in a cozy nidus with the necessary surroundings favorable for growth and developement, and after a definitely fixed time is brought forth—whether in iniquity we can't say—as perfect in body and form, except the necessary growth and developement, as at manhood. The particular time at which the miraculous wonderful union of body and spirit takes place is a question. Whether at the moment of conception or at the natal hour, at birth when the infant lungs first expands to inspire the viewless spirit of the air I don't think we know exactly. We do know that he consists of a congerie of organs intimately connected and a plurality of exquisite systems, mysterious, curious, and complex and yet symmetrically unified into one complete whole we call a body. Consider the skeleton; the bony frame-work planned upon the most exact laws of physics and with the view of perfect adaptability with its hollow dome, its long and short levers and shafts; its squares and circles; its facets and grooves; its angles and spines and protuberances; its bone and socket cogs and wheels and hinges and springs dexterously shaped and bound together with wythes of wondrous elasticity, strength and durability. This frame-work is clothed upon by the muscular system attached to all its parts, surfaces, and faces; muscle beneath muscle, crossing and over-lapping each other; layer above layer to give form, strength and motion to the body, ramifying every part of this structure and penetrating to its remotest extremities the arterial and venous systems course their way. Beginning at the heart—that wonderful organ, the citadel of animal life with its four compartments, its partitions and columus, whose ceaseless beats unconsciously throb on to the end of life—the arteries lead out as channels and conduits to every part burdened with the red, life-giving blood, and ending at the heart the veins, as the great sewers of the system bear backward the stream of blood contaminated with debris and waste to be thrown upon the lungs—those strange, porous; pneumatic organs composed of myriads of cells and vesicles filled with air—to be oxygenated, changed and purified as by fire and returned to the circulation, along with these two systems. The nervous system travels as a sheathed companion in all their rambling ramifications, the blood moving under the laws of hydraulics while its volume, elasticity, expansion, and comprehensibility as gov-



erened and regulated by the traveling companion, the nerves. The liver with its lobes and fissures, its ducts and tuberiferi perforus, its peculiar function of eliminating the bile, itself a poison, from the blood and pouring it into the alimentary canal to act as a preserver, digestant and disinfectant. The stomach is the receptacle of food and the great organ of digestion and nutrition. The kidneys with their pelves, tufts, and uriniferi play the role of regulators in separating water from, and maintaining the equilibrium between the fluids and the solids of the system. And now comes the brain, or nervous system, the governor and masterpiece of the whole machinery, with its cerebrum, the seat of the intellect and the throne of the soul, and its cerebellum pons, medulla oblongata, and spinal chord as the seat of motion and sensation. Here we have a perfectly healthy organization and with the union of the spirit to arouse its power, awake its energies and quicken them into life we have a human being living, moving, and having being. The operation of the spirit upon the brain and nervous system, as flint and steel strike fire, brings forth that subtle and mysterious force called nervous influence which sets all the wheels of life in motion, arouses all the phenomena of existence. The mind itself is a phenomenon, a manifestation. The brain a delicate instrument which acted upon by the soul brings out the manifestation of mind. The piano is an instrument for music and behind its keys in its strings sleep a world of sweet music and harmony, and let the nimble fingers of a skilled performer touch its keys and soft, sweet music is made manifest, but let a key be out of fix and the harmony is broken and discord prevails. The locomotive is an instrument for motion, but without steam with all completeness it will still stand powerless; apply the steam and its wheels move and it flies down the track like a thing of life. The telephone is a curious instrument designed for conversation; let a screw get out of fix or the line be broken and it is as dumb as a beetle; but mend the wire and restore the connection and the voice is at once manifest and the talk goes on. Hence, there can be no mental disease, it is a misnomer. It is the body that is diseased and the mind impaired. I sometimes believe that all diseases are the result of disturbance in the nerve centres and a lack of nerve power. In melancholia the mind becomes dull, apprehensive, and sometimes suicidal from a diseased liver or stomach or some other remote systematic cause reflected to the brain and disturb-



ing nerve centres—a key is out of fix and the mind is impaired. Insanity is the result of a weakened brain produced by bodily disease; it may be the uterus or some other organ, or by sudden fright, or anger, or reverse of fortune, or disappointment in love affairs, the brain is unstrung, the keys are loosened, the wires snapped, reason dethroned and the mind darkened forever. A stroke of paralysis from disease of the brain itself breaks the connection and the mind is confused and fails. The nerves are powerless and motion and sensation is lost. A fit of apoplexy from the rupture of a blood vessel and clot-pressure on the brain spoils it as an instrument, the soul can no longer touch its keys, they are broken, the mind is broken, the mind is gone, and the noble instrument ruined forever. On the other hand in paralysis agitans and chorea the mind is bright and clear, because the systematic cause acts on the brain centre of the nerves of motion while the soul sits in the noble parlors of the cerebrum and plays on the grand organ of thought and sends forth the clear manifestations of mind undisturbed. In epilepsy from remote cause it may be hereditary, or constitutional, or syphilitic, the functions of the brain are arrested for a time, a wire snapped and the mind becomes confused and suspended until the system removes the difficulty and the mind slowly recovers its previous condition. An acute pneumonia with high temperature, forceful circulation with a bounding pulse, the effects of the poison is so intense on the brain as to disturb the functions and the mind reels before wild delirium. So with typhoid. Fever of long duration from prolonged irritation of the nerve centres the brain from stress and tension becomes enfeebled, the strings of the delicate instrument relax, and the mind sinks into low mutterings and in incoherence. When old age creeps on apace, from the cares and toils of a long life the brain wears out, and the spirit can no longer touch its keys, nor woo it back to responsive harmony, memory lapses and the mind slowly fades away as the echo of some sweet song grows fainter and fainter till it dies over the hills and this old hull worn and decrepit, once a noble structure conceived in the eternal mind and built by the eternal God which no human skill, however subtle and great, and no human hand however cunning and artful, can renew and rehabilitate, totters to its foundations and crumbles to dust and “Man goeth to his long home” to “that bourne from which no traveler returns.”

**The Etiology of Yellow Fever--Abstract of the Report of the  
Commission of Medical Officers, Marine-Hospital Service,  
Detailed by the Authority of the President to Investigate the Causes of Yellow Fever.**

Under the date of November 8, 1897, P. A. Surg. (now Surgeon), Eugene Wasdin and P. A. Surg. H. D. Geddings were detailed, by authority of the secretary of the treasury and the president, as a commission to investigate in Havana the nature of yellow fever. Their full report, dated July 10, 1899, has been received and is printed as a separate publication.

The report embodies the work of the commission in fairly testing the claim of Professor Sanarelli, of Bologna, Italy, that the bacillus icteroides is the cause of yellow fever, and the conclusion is drawn that this famous scientist has isolated the true cause of the terrible scourge.

This conclusion is based upon a careful bacteriologic study, in the well-equipped laboratory of the marine-hospital service in Havana, Cuba, of 22 cases of disease thought to be yellow fever by the native physicians in attendance.

Of these cases all were seen during the progress of the disease, and in 14 of them the commission concurred in the diagnosis.

Each case was the subject of careful bacteriologic study before, and if practicable, after death. This consisted in the abstraction of blood in sterile bulb tubes from the ear tip under careful asepsis. The blood was then diluted in the bulbs with meat-peptone bouillon, and after an incubation of twenty-four hours the growth was transplanted to fresh tubes of bouillon, from which, after twenty-four hours, Petri plates were made in series. From these the organisms present in the blood were isolated in pure cultures and studied. After isolation each organism was subjected to the cultural examination on all media, by means of which those meeting the demands of Sanarelli for the organism he discovered were readily selected and their pathogenicity for animals established.

Of the 14 cases diagnosed as yellow fever, the commission isolated the organism of Sanarelli, the bacillus icteroides, from 13, and in the case in which this organism escaped the observation of the commission it was isolated by an independent observer for whom tube cultures had been taken at a necropsy conducted by the commission.

Thus the even per centage of isolations has been obtained in these 14 cases, all of which presented prominent symptoms of the disease. In the cases not thus diagnosed the organism of Sanarelli was not obtained.

From the living blood in 12 of the 44 cases, abstracted not earlier than the third day of the disease, the organism was isolated, and in the two others it was obtained by post mortem.

The commission having preserved a number of cultures made at the isolation hospital in the city of New Orleans from cases seen during the epidemic of 1897, also isolated therefrom the bacillus icteroides in the proportion of 83.33 per cent of the cases examined, the cultures having been made at necropsy.

Thus the identity of the bacillus icteroides of our southern states, with that found in Cuba, and that sent the commission by Prof. Sanarelli, which was obtained in South America, was established.

As a control to these examinations the commission made use of a number of cases suffering from diseases other than yellow fever, from which the blood, extracted in the same manner and treated in the same way, failed to yield any organism at all comparable to Sanarelli's. These diseases were representative of those usual to the city of Havana and were seen during the same period of time in which the cases of yellow fever were under observation. Also there were 31 dead bodies examined, bodies dead from known and unknown diseases, many of them in the city morgue, the most of them in the Spanish military hospitals. In each instance careful section was made and the blood from the heart, from the liver, the spleen, and the kidneys, and the urine, and feces, planted directly into bouillon or agar-agar slant tubes, from which cultures series of plates were made.

All bodies thus examined, at times many hours after death, yielded colonies of various organisms, save one, and this at the time of necropsy was diagnosed pathologically as yellow fever, and was sterile.

In none of these cases of comparative necropsic examination was the bacillus icteroides—neither in their blood, nor urine, nor feces. Therefore, the commission assumes that the organism of Sanarelli is found only in the bodies sick with or dead from the disease of yellow fever, at the same time conceding that in many

of the sick the blood does not yield the germ, and that in the dead it may prove absent only under certain conditions.

Coincident with the above observations the commission carried on the study of the natural history of the organism, as to its mode of entering the body, its colonization therein, its toxic possibilities, and its distribution in the organs post-mortem.

Numerous and interesting experiments were made with animals, the commission finding all the animals at its command, such as mice, rats, dogs, cats, guinea pigs, rabbits, and monkeys, quite susceptible artificial to the infections produced by inoculating them under the skin, intraperitoneally and endo-venously. At the same time it became convinced that the same or very similar results were obtainable by the use of other organisms of different kinds. It found, as had been claimed by Sternburg, that similar clinical and anatomical results could be found after the artificial administration of the bacillus X, as well as that of Havelburg, and of the bacillus coli communis, all of which proved, artificially exhibited, very pathogenic to all animals, and necropsies upon these revealed similar conditions of the organs. Moreover the toxins elaborated *in vitro* by the above-named organisms, X, Havelburg, and coli communis, and the icteroides were precipitated, purified, and tested, comparatively upon animals, with the result that the commission decided that the *mode of death* from these toxins, when injected into animals, *was the same in kind*, and that the toxins differed only in intensity, and that of these the bacillus icteroides produced the most potent.

From these facts the commission, early in its work, became convinced that the claim of Professor Sanarelli, of having discovered the germ of yellow fever, was not established by any evidence presented in his published works, and that it was not tenable so long as it could be claimed that the bacillus of Havelburg and the bacillus X of Sternburg produced the same pathological conditions when artificially inoculated, and the commission recognized the validity of this claim, in view of the facts given above, although it had for a long time recognized both of these organisms as belonging to the colon group.

At this stage of its work the solution of the problem seemed very remote, but before turning to some other and unknown cause of this disease it was determined to place experimental animals under *natural conditions of infection*, since it was recognized that all preceding experimental work was so artificial that



it was impossible for the commission to judge of the pathogenic, or rather *specific*, merits of the three prominent organisms.

From this animal experimentation the commission proves the natural specificity of the organism of Sanarelli; the absolute innocuousness of the bacillus coli communis, of the bacillus X, and of the bacillus Havelburg, to even the most susceptible of animals; and a marked degree of similarity in the reaction of the animals (mice) to the *acute infectious organisms*, such as bacillus cholerae suis, when exhibited to them naturally. The Sanarelli organism is thus eliminated from the colon group and associated with the acute infectious organisms.

The commission recognized that Sanarelli's claim was *only* one of pathogenicity and not of *specificity*; that until such demonstration of specificity there could be no *valid* claim for his organism. This validity the commission believes to have established in the conclusion that the bacillus icteroides is "naturally infectious to animals the degree varying with the species; that in some rodents local infection is most quickly followed by blood infections; and while in rabbits and dogs there is no evidence of this subsequent invasion of the blood, monkeys react to the infection of the same as man."

The commission has determined "that the infection takes place by way of the *respiratory tract*," and that the primary colonization in the lungs is responsible for the first evidence of absorptive intoxication such as fever, pains, etc., characteristic of the disease. Also that this primary colonization in the lungs and its poison symptoms may constitute the *entire attack* of the disease in many instances, an attack so light, so ephemeral, that even the most expert diagnosticians may not differentiate them from the ephemera, or poorly marked attacks of allied diseases, as for instance the *dengue*.

Moreover, the conclusion has been reached that what is known in the literature of yellow fever as the "reactionary fever," the "secondary infection," (from germs normal to the body), and the "secondary paroxysm," is due to the passage of the infecting germ, the bacillus icteroides, from its primary colony in the lungs into the general circulation, thus producing "secondary paroxysm" so familiar clinically, in all marked cases, unless of the *siderante* type.

The "secondary paroxysm" is then a septicæmic one, and it depends not upon bacillus coli communis, or bacillus proteus, or

upon the micrococci, but upon the further colonization of the specific organism in the blood, thus bearing out Faget's observation that the "*decline*" of the fever, the true "secondary paroxysm," is as *specific* as the "rise," or the primary attack.

The commission recognizes the coincident invasion of the blood by the organs of the respiratory tract, among which are found colon and proteus, as of possible, it may be of frequent occurrence, or these may invade from the alimentary canal "during the last hours of life," when the mucosa becomes impaired from stasis and this invasion becomes possible, such mixed septicæmiæ being of most severe type and frequently fatal. The commission, therefore, differs entirely from Professor Sanarelli in his theory that the disease of yellow fever is primarily a septicæmiæ. Indeed, it can scarcely be a matter of surprise that Sanarelli formulated this opinion, seeing that he always produced, with (as he thought) unimportant exceptions, artificial infections by internal inoculations, which, perforce, must have produced septicæmiæ. Those cases not open to such explanation, which he observed in man, he explained in a still more unsatisfactory way; in fact by the assumption that the germ selected to hide away in the spleen in small numbers during the *whole course* of the disease only to suddenly come forth and produce septicæmiæ at its termination.

The commission, therefore, concludes that the theory of Sanarelli in this regard is not sustained by the facts of these cases, and offers the above solution of probably the most widely and generally observed characteristic of yellow fever, the "secondary paroxysm" characterized by a septicæmia.

The theory formulated and expressed by Dr. Sternberg, U. S. A., that the "general principle" in yellow fever was to be looked for in the alimentary tract, an opinion evidently dependent upon the well-known influence of the disease upon the organs adjacent and contributive to this tract and portions or the tract itself, as the duodenum, has been found untenable by the commission, since there is no record of anyone ever having isolated the specific germ from the canal save in the case of its presence there through some capillary hemorrhage into its lumen.

The influence of the various disinfecting agents upon the bacillus icteroides has been studied by the commission with an eye to the practical advantages to be derived from a better ac-

quaintance with the organism, and it is found that the organism is readily influenced by the mechanical and chemical agents in ordinary use. Cold, however, is not a factor in this process, for the organism resists the most extensive refrigeration, and no reliance can be placed on this mode of disinfection. On the other hand, the organism is very susceptible to dehydration, and cannot withstand artificial drying for more than ten to twelve days, and it is very probable that its susceptibility to frost is due to the lessened humidity of the atmosphere at such seasons rather than to the degree of cold experienced. Sunlight is very fatal to this organism, and no doubt is more so if the organism has lost its vitality through evaporation of its fluids, as in a frosty atmosphere.

The semblance between the bacillus icteroides, in its behavior on certain media, and the bacillus of hog cholera has been brought to the attention of the commission; and it has deemed the observation that there is a possible similarity in the pathogenicity of the two organisms in the domestic hog of great importance, although its experience, in the observation of cultural similarities leads to the conclusion that they are culturally distinct, while the infection of the domestic hog, in its experience, is impossible by the method pursued of feeding bacillus icteroides to them.

However, the question being of too much importance to be determined without full data, the commission placed under treatment a number of domestic hogs, in an environment free from suspicion of the possibility of any contamination which the bacillus cholerae suis, with a view to deciding the question of the reaction of these animals to the bacillus icteroides, administered to them in pure cultures in their food. These experiments were conducted at the United States quarantine station at Delaware Breakwater, and therefore it is deduced, first, that the domestic pig is incapable of infection from the bacillus icteroides when introduced through the intestinal or digestive tract, and second, that the bacillus icteroides, when fed to pigs, will not produce any of the lesions or intestinal symptoms of hog cholera.

#### CONCLUSIONS OF THE COMMISSION.

First. That the microorganism discovered by Professor Guiseppe Sanarelli, of the University of Bologna, Italy, and by him named "baccillus icteroides," is the cause of yellow fever.

Second. That yellow fever is naturally infectious to certain animals, the degree varying with the species; that in some rodents local infection is very quickly followed by blood infection; and that, while in dogs and rabbits there is no evidence of this subsequent invasion of the blood, monkeys react to the infection the same as man.

Third. That infection takes place by way of the respiratory tract, the primary colonization in this tract giving rise to the earlier manifestations of the disease.

Fourth. That in many cases of the disease, probably a majority, the infection or colonization in the lungs is followed by a "secondary infection" or a secondary colonization of this organism in the blood of the patient. This secondary infection may be complicated by the instantaneous passage of other organisms into the blood, or this complication may arise during the last hours of life.

Fifth. There is no evidence to support the theory advanced by Professor Sanarelli that this disease is primarily septicaemia inasmuch as such cases do occur in which the bacillus icteroides cannot be found in the blood or organs in which it might be deposited therefrom.

Sixth. That there exists no relationship between the bacillus "X" of Sternberg and this highly infectious disease, and that the bacillus "X" is frequently found in the intestinal content of normal animals and of man, as well as in the urine and in the bronchial secretion.

Seventh. That, so far as your commission is aware, the bacillus icteroides has never been found in any body other than one infected with yellow fever, and whatever may be the cultural similarities between this and other microorganisms it is characterized by a specificity which is distinctive.

Eighth. That the bacillus icteroides is very susceptible to the influences injurious to bacterial life; and that its ready control by the processes of disinfection, chemical and mechanical, is assured.

Ninth. That the bacillus icteroides produces *in vitro* as well as *in vivo*, a toxin of most marked potency; and that, from our present knowledge, there exists a reasonable possibility of the ultimate production of an antiserum more potent than that of Professor Sanarelli.—*Public Health Reports*.



✓ **Smallpox in Eastern Virginia.\***

BY FRANK H. HANCOCK, M. D., RICHMOND, VA.

The relation that succeeding historical epochs have borne to one another; the similitudes that have occurred in all pages of life's history; the cyclical courses that all governments seem to have run; the evidences of change in every natural thing have all, long ago, been expressed and explained as processes of evolution, processes to which nothing material or immaterial has proven inoperable. And so smallpox, manœuvred, it may be, by the same subtle influence has been in course of change, and it can no longer be said, as was true of previous outbreaks, that smallpox is but a long repetition, that one epidemic is but the plagiarism of another. The smallpox in Eastern Virginia was not of orthodox form. With initial symptoms somewhat distinctive, its after developments were attenuated and perverted in almost every single instance. Its very existence seemed, in fact, a 'hideous abortion' with oftentimes as much approach to conventional smallpox as an initial chancre approaches in appearance the after manifestation of syphilis. So striking were these anomalies that at times one felt forced to believe that what he was treating and isolating was some species of monstrosity, a nondescript; as nameless among diseases, perhaps, as the relation was innominate that a King of the Jews sustained to the animal kingdom during a cruising expedition when he grazed for seven years, and is said to have appeared as a biped quadruped. Such a position upon the part of a man was scarcely less curious than was this hybrid manifestation of smallpox. Nor had we the advantage of that stage of literature, when to have divulged that to some mystic meaning, might be attributed to this monstrosity of form would have explained the unusual to the querulous public.

The people of Eastern Virginia were shocked by announcements from local health boards that smallpox had developed, and then that this disease, prehistoric in its distressing effects, was under way. Alarm spread rapidly. Enhanced by the reports of cultured imaginations, and the recitations of those whose experiences were cipher-traced upon their faces, consternation was diffused over the country—a country which for its remark-

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\*Read before the Alumni Association of University College of Medicine, Richmond, Va., May 11, 1899.

able amount of excitement might have been imagined a creature of touchwood, a world of smokestorm, where rumors, wind-driven, were continually flying. Probably it was some of these that reached the ears of the state board of health, for at one time it said that under the circumstances it was a great wonder that the whole state was not infected, inasmuch as sufficient embargoes had not been placed upon the public traveling to and from these infected districts.

It is a pleasure to remark that though the methods here suggested were not employed, the state suffered little from smallpox in eastern Virginia.

Again, it declared, saturnian-like, that there were one thousand cases of smallpox in eastern Virginia. It is said that imagination is a licensed trespasser. We will not complain of the state board of health. We would not accuse it of travesty. But there were not at any one time one thousand cases of smallpox in eastern Virginia. The scientific interest that attaches to this epidemic is its atypical conduct. It seemed rather a contagion of anomalies that an epidemic of smallpox, and medical men were not always ready to assimilate its whilom movement.

#### PERIOD OF INCUBATION.

This is usually from fourteen to twenty days. It was at first a custom in Norfolk County to release suspects after two weeks' quarantine. Experience quickly taught us better. About the first of December a white woman was thought to be suffering with mild smallpox. A week before she had had a chill, followed three or four days later by three or four papules on each wrist, two on the face, one on the shoulder, and another on the knee. Vesciculation and maturation were feebly defined, the eruption being abortive. Two families that had moved out were secured and returned, with difficulty, and the house quarantined. After fourteen days of exposure the place was disinfected, and the three men, supports of indigent families, were allowed to return to their work. On the sixteenth day the husband of the smallpox patient was taken with a severe headache, and in thirty-six hours his face was sheeted in a rose rash, other sections of the body becoming quickly involved. Characteristic papules developed, and he had a typical case of smallpox. Later a child in one of the families exhibited a varoloid, and was returned to its original place of quarantine. The third family

developed smallpox, it is understood, in North Carolina, where they had gone on a visit. A colored farm hand having been exposed to smallpox was isolated. On the twentieth day he presented symptoms of smallpox and was sent to the pest house. The epidemic proceeded, we found that it was unusual for cases to develop under fourteen days, that in the majority the stage of invasion began about the sixteenth or seventeenth day, a fact first taken cognizance by Dr. L. C. Shepard, of Norfolk, Virginia.

#### INITIAL SYMPTOMS.

As is usual with smallpox the cases in this outbreak started with a chill, headache, backache, and such phenomena. The fever was usually from one hundred to one hundred and two, and would last with the headache or backache until the eruption came out, which was in good form, as genuine smallpox is said always to do that way. The introductory suffering, at times very keen, was in inverse proportion, or no proportion at all, to the later stages. Headache so severe as to suggest meningitis would be followed by a feeble crop of short-lived bumps. Sunday, April 23rd, 1899, a colored woman experienced a most rending headache. Hoping to relieve the acuteness of her suffering she blistered her forehead from the extremity of one brow to the other. Saturday, April 29th, 1899, she was visited. There were the remains of four papules upon her face. The scabs, or their counterparts, had fallen off leaving a slightly red, dried elevation. Upon one thigh was a dark round place, evidently a recent eruption, but did not have sufficient vitality to become a papule and smouldered where it lay. Aggravated initial symptoms followed by an eruption that in five days had run its course and subsided.

Ebin Quinn, colored foreman of a railroad gang, felt indisposed February 24th, 1899; felt as though he had a cold, some fulness about the head, stiffness of the joints, no localized pain, very little inconvenience of any kind. On the fourth day the eruption came and he was thirty days recovering from a vicious case of variola. Initial symptoms were indicative of nothing.

#### STAGE ERUPTION.

The eruption as seen in this epidemic was typical as to the time of its appearance, coming about the third or fourth day. There seemed no relation between its early appearance and a se-

vere case of smallpox, a fact announced by Sydenham. The eruption began in papules and sometimes ran typical courses. In an immense number of cases the type was abortive, and the stages could not be differentiated. Usually the epidermis alone was affected, the papillary layer, being rarely involved. Pitting was therefore unusual.

What must have been very impressive to observers of this epidemic was the superficial look, the surface involvement, of these eruptions, particularly in the white cases. They looked as though they had been dabbed on the skin, and held by adhesion. Frequently there were no indurated bases. They were not profound. Their frailty could be easily demonstrated by inserting a needle. The muco-purulent secretion would exude, and the thin walled capsule at once collapse, leaving a place that palpitation could scarcely detect.

Compare this with the multilocular cell arrangement of the ordinary pock postule, where the most indutrial attempts will not entirely discharge its contents, or bring about a collapse, and the difference in this and other epidemics will be appreciated. A good deal of trouble was experienced in dealing with a variety of pock eruptions, which have been called hornpox, or wartpox. It developed as the other forms, but subsided indefinitely. After the postules dried this horny, mummified substance remained. It had the shape of the original eruption, was honeycombed, and looked much like the usual scab. Upon close examination it would be found to be hard and utterly immovable. After a month or two, sometimes three months, it would disappear, and in its place would come a pit, which would resemble a pit of syphilis. It is highly probable that some cases discharged from pest houses, and picked up upon the streets by other health officers and declared to be infectious, belonged to this class. Exposed mucous membranes, such as the mouth and the pharynx, were regularly affected, the eruption corresponding to that on the outside. Not possessing the fibrous compactness, the density of the skin, these parts were easily disturbed by an invasion, and any considerable amount of eruption was attended by a spontaneity of swelling and infiltration that was at once alarming and dangerous.

A patient with discreet smallpox was handed a glass of milk. Efforts to swallow were abortive, the milk returning through both nostrils. The milk, though directed backward



with the usual force of the tongue, could not reach the œsophagus. The sagging walls of the posterior pharynx encroached upon the anterior surfaces, and the elevators of the pharynx were unable to either lift or dilate its infiltrated attachments, that the pharynx might receive its food. The elevator palati muscles could not elevate the soft palate with its appended mass, the uvula, to protect the nasal apertures. The milk, therefore, pressed backward by the tongue and constrictors of the fauces, went the way of the least resistance—the posterior nares.

#### DIAGNOSIS.

During an epidemic an initial chill with headache, backache, and some fever, followed in from thirty-six to forty-eight hours by an eruption are always suggestive of smallpox. How easily, it would seem, smallpox is diagnosed, a disease so accurately punctured, so symmetrically staged. Hardly in the discription of classical diseases have text books enjoyed such an opportunity of editing symptoms, and they have pursued it with an emphasis that is magisterial, a knowledge that is incorruptible. With but a meager recognition of its variations, authorities have classed and specialized, defined and costumed, fixed and elaborated, its periods until the disease is given but one general expression, and that fixed by destiny. Consultations over suspicious cases will demonstrate the influence of these perniciously taught dogmas. What is said during such conferences being but repetitions of what has been written, as the speaker remembers it. The disease must be as it written of by Sydenham, by Osler, by others; the majority of cases must violent infectious nature; the examiner must see faithful reproductions of European editions of smallpox, or the cases before you of those are impetigo, and the epidemic one of that contagion.

Given a typical case of smallpox, a case where the eruption comes out clear and strong, papules that are shoty, vesicles that are umbilicated, odorous postules with concomitant fever, and we have a text book reproduction, a state of affairs that health officers in previous epidemics will understand, and will agree with you is smallpox. But where ninety per cent. of the cases are very much unlike this, where the very mildest imaginable cases occur absolutely independent of any previous vaccination; where the people rarely stop work during the stage of eruption, where the biggest mortality yet recorded is between two and

three deaths in every one hundred cases; then you have conditions that text books have not described, and that their circumscribed devotees cannot recognize. Mrs. C. was reported by her neighbors as having smallpox. She was visited by a health representative, and gave the following story: Sometime before she had had a very severe headache, and aching through the body; had some fever and anorexia. The third day the eruption began to appear upon her face, neck and body. When seen, about the seventh day of eruption, the pustules were widely scattered, were 3 m.m. deep, and about the size and shape of a capsule cut off. There was no induration of the bases, no redness of the skin between these pocks. The secretion would exude upon the insertion of a needle, and the pock collapse as freely as a pneumatic tire. The disease was pronounced smallpox. The family physician was called in. After a most careful examination he decided it was chickenpox. It was expected that a diagnosis of impetigo would be made as it resembled that disease sufficiently to befog a callous observation, but it is supposed that the alternative, varicella, was in accord with the dissonant note the physician was determined to sound, and that the symptoms of this favorite disease were passed over in the excitement of a differential diagnosis, where the delicious possibility of confounding those who were already committed to a diagnosis of variola seemed so apparent. Those most interested being compelled to admire the strength of this intellectuality brought to bear, savoring so much of titanium. Two other physicians were called and they demurred to the the diagnosis of variola. A fourth man was called in to see the case. He agreed with the health representative and advised a quarantine. The husband was stopped from work, and a moral quarantine ordered. Soon the husband was taken sick and went through with the disease, as did all his children. The people under the misdirected influence of their family physician did not regard the quarantine, and allowed their neighbors and friends to visit them. The result of it being that more than twenty cases developed, comprising five other families, people that should have been protected, that were not able to meet the losses thus involved, to be sacrificed by the technicalities of circumscribed judgement. Many medical men of the section where smallpox has raged, and still exists, declare that, while there have been some cases of variola, the majority of the eruptions were of those of impetigo contagiosa.

They base their conclusions upon comparisons, upon what they have seen, and what they have read. Many cases supposed to have had smallpox have been vaccinated, successfully, so it is said. In one instance a patient was vaccinated during the pustular stage of smallpox. A sore resulted, which was photographed. Besides the vastly increased irritability of the skin at this stage it is almost an impossibility to denude an area in the neighborhood of pustules without introducing some contamination, and it was suggested that the sore was one of pus infection, but the physician could not concede such a point, could not so easily let go his proof conclusive, and incorrigible, he is still using this merciless argument, still proclaiming the vaccination that "took" during pustular stage of smallpox, the instantaneous appearance of variola and vaccinia. This one fact in connection with all this that these physicians, adroit and cultured as they may be, have not been able to explain, Why is it that these people bearing impetigo upon their surfaces, do not contract variola when exposed to it?

A negro developing an acute case of bumps was not held to investigate variola, or varicella, or impetigo, but he was sent, and sent at once, to the pest house. There he ate, slept, and drank, in warm, crowded rooms for weeks, where patients, piled in tiers, presented smallpox in every conceivable stage. And yet it is an official fact that of the twelve hundred cases sent to the Norfolk County Pest House, in but one did the bumps dry up, and a variolous eruption supervene. He was seen twenty-four hours after his admission to the hospital by Dr. W. Keeling Wood, physician in charge, who at once recognized that a mistake had been made, and had the patient was removed to the house of detention. But the disease, which finds its peculiarity in attacking this race, had infected him, and after the usual incubation he developed smallpox. Had observation been strictly devoted to single cases, in this epidemic, the cases not judged according to maxims, it is probable that medical men would not have been in such diametrical opposition, that the partisans of impetigo and varicella would not have been so far in the distance in appreciating this entirely new stratum that has been laid in the history of smallpox.

#### VARICELLA AND VARIOLA.

The close approximation of the stages of invasion and eruption, the one following the other from twenty-four to thirty-six hours, is an almost infallibly distinctive point of varicella. The eruption of the milder disease would develop and pass away almost as rapidly as urticaria. The abortive form of variola, seen so often, where the stages were illy defined, presented a somewhat similar tendency, but never changed with the precision of varicella. The bright red splotch of varicella, as seen in the whites, quickly surmounted by a vesicle, was in sharp distinction to the sombre-hued papule of variola. The eruption



in varicella is in spots, soft and bright, that of variola in papules hard and shotty.

The points of similarity of other diseases will be left to those whose interests have been served in establishing them at every opportunity, whose talents have been spent in that direction. We will leave the discussion with what has been said of the small-pox of today.—*Charlotte Medical Journal*.

(The above article so thoroughly deals with the smallpox situation in the United States that what applies to Virginia is also in this state. It had been our intention to write on just these lines, but the ground is so entirely covered by the above, we take pleasure in reproducing it here.—EDITOR.)

## Correspondence.

NEW ORLEANS, LA., Aug. 3, 1899.

GENTLEMEN:—At the request of Dr. Dubois-Havenith, Secretary-General of the International Conference for the Prophylaxis of Syphilis and Venereal Diseases, and also for the Study of methods for the Control of Prostitution, I would ask you to give some notice to this important meeting, to be held in Brussels September 4, and following days. Papers are to be read by Drs. Fournier, of Paris; Neisser, of Breslau; Lasser, of Berlin; Finger, of Vienna; and a number of others prominent as students of these questions. The committee has indicated the following as delegated to investigate conditions of prostitution in their respective countries.

Argentine Republic, Dr. Balpomero-Sommer, of Buenos Ayres; Austria, Dr. Finger, Vienna; Belgium, Drs. Bayet and J. Verhoogen, Brussels; Bosnia, Dr. Gluck, Savajevo; Chili, Dr. Valdez-Morel, Santiago; Denmark, Dr. Ehlers, Copenhagen; England, Dr. Geo. Ogilvie and Dr. Drysdale, London; France, Dr. Ozenne and Dr. Julien, Paris; Germany, Dr. Blaschke, Berlin, and Meisser, Breslau; Hungary, Dr. Rona, Budapest; Holland, Dr. Seihorst, The Hague; Italy, Dr. Tommassoli, Palermo, and Dr. Bertavolli, Milan; Norway, Dr. Axel-Holst, Christiania, Roumania, Dr. Petrini de Galatz, Bucharest; Russia, Dr. Petersen, St. Petersburg; Sweden, Dr. Welander, Stockholm; Switzerland, Dr. Jodassohn and Schmid, of Berne; Turkey, Dr. Von Duhring and Dr. Zotos, Constantinople; United States, Dr. Isadore Dyer, New Orleans.

If you have any data of any kind bearing on the above subjects, you may send them either to Dr. Havenith (Rue du Gouvernement Provisoire, Brussels), or to me.

Very Respectfully,

124 Baronne St.

ISADORE DYER, M. D.



## Editorial.

**H. M. FOLKES, M. D.,** . . . . . **BILOXI, MISSISSIPPI,**  
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Those intending to contribute papers in any of the sections will please send copy of same to chairman of section in which it is written so that those appointed to lead in discussion may have opportunity to prepare themselves along line written upon. This should reach the chairman not later than March 15, 1900. The names of those appointed to discuss the various papers will be announced later, as the chairmen make selections

IN a timely editorial in the *Journal of the American Medical Association* goes on to show that efforts should be made to distinguish and extinguish smallpox. Among other things as ao-

counting for the extremely mild character of the disease in many places, the *Journal* points out that varioloid is essentially the nature then. With this statement we are bound to find fault, for in hundreds of cases seen by us there has been no history absolutely for generations back of vaccination, and if we understood the term correctly, varioloid is smallpox modified by precedent vaccination. We have with us either a new disease, or else smallpox has not been fully described in the text books. Our contemporary further states that chicken-pox rarely exists among adults. This is as a rule correct. Now if some light would just be thrown on the fact as to whether an adult, having had chicken-pox as a child, could have another attack is a matter of moment. Of all the authorities consulted by us, only one, and he so far back amid the mists of the past that his name at present escapes us, admits a second attack and he only speaks of it as being among children then. After one gets away from college and finds things not as the books say they should be, he should throw all the light possible on the subject for the benefit of others. So all having queer experiences with smallpox and its vagaries should proceed to help out before next winter, when we are likely to have the most widespread outbreak of the disease that this country has seen in years. It has been our fortune to have seen a case of smallpox occurring in a woman who had had chicken-pox as a child, and while convalescent from her smallpox present a splendid take from vaccination, which had been used as a proof that she did not have smallpox. Well, when the vaccination took, the people all said that we had been mistaken in our diagnosis and wanted to say all kinds of unpleasant things about us, in fact not only wanted to but did. This kind of doings was interesting to a sanitarian, because it involves practical work, right out among the people whom we are trying to protect and who want to know the whys and the wherefores for everything. So after writing around and talking a good deal we find that Dr. Janeway knows something about it, and a letter from the Doctor brings information proving beyond all doubt that the taking of a vaccination does not prove that the patient had not had smallpox. Some of the doctors seeing many of these patients call it impetigo contagiosa, but I notice some people subsequently getting sick after having been with these impetigo cases are sometimes diagnosed at other places where they may have gone, as having

smallpox. We need more light on both smallpox and impetigo.

\* \* \*

#### ANTIMARYLIC SERUM.

It is curious how such a mistake could have been made as to announce Dr. Doty's experimentation with the Saranelli serum to have been the first of its kind in the United States when away back yonder in September 1898, Surgeon Wasdin of the M. H. S. used the serum in three cases and reported them in detail in Public Health Reports of November 25, 1898. Wasdin is a particularly good observer and owing to the limited number of cases—three—in which it was used, he wisely drew no conclusions. Journals should make the correction as to priority.

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FROM the way that typhoid fever is getting spread over the country, it is high time that a halt was being called on the fool way some doctors have of calling the disease typho-malaria or slow or continued fever or some other such exhibition of stupidity. For the sake of humanity the teachers in the schools should instruct their students that calling it some other name will not lessen the infectiousness of typhoid nor is it absolutely essential to a diagnosis of the disease that all the symptoms as described in the text books have to be found; and another thing, for God's sake teach them not to kill their patients with quinine by pouring it in day after day until the poor devil has gotten to quivering like an aspen. If the Spanish-American war does no other good on earth it should have taught the lesson that typhoid can be conveyed by other means than milk and water. When I say taught, I mean impress, because these facts were known before. Just to read an account as to the medication among the troops at the various camps and hospitals and how the poor creatures were poisoned with quinine because, perhaps, they did not have rose spots or gurgling in the right iliac fossa or a dry, parched, cracked tongue and sordes, etc., makes me weary of text books and their composite and typical cases. All over the south we have typhoid fever that affords as its only symptoms of that disease an evening rise, slight tenderness over the liver and spleen, a non-malarial tongue and that *tout ensemble* which to a mind accustomed to its phases is indicative. It is typhoid alright, as I have time and again dem-

onstrated by the Widal reaction. If all our medical men would take the trouble to thus verify their diagnosis, we would not be having the numerous outbreaks that are reported, because they would then appreciate the importance of disinfection and see it carried out with their patients. Just wait until we get the natural history of epidemic diseases taught in the public schools, and then any doctor so ignorant or so indifferent as not to take proper precautions to prevent spread of disease, will soon discover himself a lost star in the constellation. Among the better classes, so to speak, right now they demand from their physician that he should be in the advance and give them proper instruction as to how others in their families may escape a disease which some other member may have contracted.

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SOME of the northern states are granting reciprocal licenses to graduates from states requiring the same standard as themselves. This is quite right, but should be unnecessary for the reason that the national government should establish a requisite number of medical colleges all over the union, a diploma from which should give privilege for practicing in any state, territory or province under the control of the United States government. Another step forward would be the taking into government service those making best records at the various colleges. This would do away with the army, navy and marine hospital examinations and would serve as a most potent stimulant to the student to excel. By such a step as this, with the faculties under pay from the government, we would see an improvement in the tone of medical education. Make the course five years with at least one year's hospital work, instruction free, preliminary education essential, and with above-mentioned opportunities for life work with the government, should the student so desire, and add to this fresh and greater emoluments to the teachers as they may prove themselves more and more deserving and no nation could surpass us as a center of radical thought.

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OWING to the fact that the Hampton yellow fever scare is so far away from here and our inability to get what we consider authentic news on the situation, we will withhold comment until better posted. It is a far cry from here to Virginia and in such distance, news gets twisted sometimes, so we wait.



## Abstracts and Extracts.

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FOR SYPHILIS.—Inject into gluteal muscles twice weekly ten minims of the following mixture, which has been rubbed together until the mercury globules have completely disappeared; metallic mercury one drachm; lanolin, two drachms, carboled olive oil (two per cent), one drachm.—*Hammond, N. Y., Medical Journal.*

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### SIROP DE DENTITION—

Acide citrique.....	50 centig.
Eau distille.....	50 “
Mur. de cocaine .....	10 “
Sirop simple.....	10 grams
Sirop de safran .....	10 “
Tenture de vanille.....	12 drops.

Rub on the gums.—*La Revue Medicale.*

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KERNIG'S SIGN IN CEREBRO-SPINAL MENINGITIS.—Described by a Russian physician and studied in Germany and in France, this interesting sign, says Osler, has not attracted the special attention of English and American physicians, though Herrick, at the last meeting of the Association for American Physicians, spoke of its value. It is an old observation that the subjects of protracted meningitis, particularly children, very often lie with the thighs flexed upon the abdomen, and with the legs in a state of partial contracture so that they are with difficulty extended. To test for Kernig's sign the patient should be propped up in the sitting position; then on attempting to extend the leg on the thigh there is contracture of the flexors which prevents the full straightening of the leg. On the other hand, in the recumbent posture the leg can be fully extended. The explanation of the phenomenon, given by Netter in his excellent article on Cerebro-spinal Meningitis in Vol. XVI. of the "Twentieth Century Practice," is as follows: "In consequence of the inflammation of the meninges the roots of the nerves become irritable, and the flexion of the thighs upon the pelvis when the patient is in a sitting posture elongates and consequently stretches the lumbar and sacral roots, and thus in-

creases their irritability. The attempt to extend the knee is insufficient to provoke reflex contracture of the flexures while the patient lies on his back with the thighs extended upon the pelvis, but it does so when he assumes a sitting posture.—N. Y. *Medical Record*.

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THE ZOOLOGICAL DISTRIBUTION OF TUBERCULOSIS.—At the last meeting of the Zoological Society of London Dr. Woods Hutchinson, of Buffalo, read a paper on this subject, founded mainly on observations made in the society's gardens. Of two hundred and fifteen necropsies made in the prosector's room during the past six months, forty-nine, or 23.3 per cent. of the mammals and birds, presented the lesions of tuberculosis. This mortality fell most heavily upon the ruminants and gallinæ, and least so upon the carnivores and raptors. Race or family appeared to exert little influence upon susceptibility, mode of housing only a small amount, and food and food habits much more. A close correspondence appeared to exist between immunity and the relative size of the heart in both birds and mammals.—N. Y. *Medical Record*.

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## Medical News and Miscellany.

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Contributors to this journal can secure reprints of their articles, in pamphlet form, at very low rates, by addressing The Biloxi Herald, Biloxi, Miss.

THE INFLAMMATORY CONDITION IN PERITONITIS, ETC.—An interesting reference to an extensively prescribed remedy is found in that valuable text-book, "Materia Medica and Therapeutics," by Finley Ellingwood, A. M., M. D., Chicago. The substance of the article is to the effect that the influence as a pain reliever of the popular analgesic—Antikamnia—is certainly next to morphine, and no untoward results have obtained from its use, even when given in repeated doses of ten grains (two five-grain tablets). It is especially valuable during the progress of inflammation, and given in pleuritis or peritonitis it certainly abates the inflammatory condition, relieves the

pain at once and the diffused soreness shortly, as satisfactorily as opium. It does not derange the stomach or lock up the secretions.

Dr. John Burrus Fearn and his wife, who was Dr. Anne Walter, have arrived from their far-off Chinese home for a short stay with home folks before going to New York where both will take a post-graduate course ere returning to the "Flowery Kingdom." Both the doctors are ornaments to the profession and the state of Mississippi feels proud of them and their record in the east.

Prof. A. C. Bernays of St. Louis, Mo., has resigned his chair in the Marion Sims College of Medicine, and will devote three and one-half hours each day in the future toward teaching practical surgery to private classes of graduates in medicine. Details and prospectus can be had by addressing his manager, Dr. Frank M. Floyd, 612 Union Trust Building, St. Louis, Mo.

Dr. E. P. Odeneal and wife have returned from Europe where the doctor has spent the past six months in the study of medicine. The Doctor will locate in Greenville and to the good people of that town we commend him as being one of the very best physicians it has been our fortune to know. Dr. Odeneal is peculiarly well equipped for practice in the delta, having been for the past five years or more surgeon of the Guatemala Northern Railroad in Central America. He brings to bear in his new location the ripe judgment which ample experience afforded in his tropical practice, refined and polished by study and observation in New York, Edinburgh and other medical centers. We extend best wishes of complete success in his new field.

SANMETTO IN ENUROSIS NOCTURNA.—While visiting my nephew in Illinois last Christmas he told me his little girl, 6 years of age, had always "wet the bed" at night, and asked me "What shall I do for it?" I procured three ounces of Sanmetto, all the druggist had at the time; the second night she missed, and has had but three nightly omissions in two weeks. He wrote me last week "we consider her cured but shall keep an original bottle on hand and use if necessary." I have uni-

formly good results from prescribing Sanmetto in kidney and bladder complaints. I. T. Hubbard, M. D., Saginaw, Mich.

Dr. F. W. Farnham, New Orleans, has been elected a member of the American Surgical Society.

**SUMMER DIARRHOEA.**—In the large class of summer diarrhoeas of children and adults, with griping in the bowels and flatulence, the use of Listerine, in doses varying from ten drops to a teaspoonful (with or without water), has a most salutary and pleasing effect. It can be administered at short intervals after eating as soon as regurgitation, distension or acidity occurs. Its action in arresting excessive fermentation is prompt, besides it exercises a decided sedative influence on the mucous membranes of the stomach. The thymol, menthol and boracic acid which, with the quota of alcohol necessary to their proper admixture, form the principal elements of Listerine, lend to this compound a special value in this class of cases.

Drs. S. R. Olliphant, J. J. Archinard and Herman B. Gessner are members of the faculty of the recently organized New Orleans College of Dentistry.

**Case 1.**—Was called June 11 to a gentleman about 60 years old whom I found very sick with dysentery, from which he had suffered ten days. Had used domestic remedies and felt better until two days before I was called when he became much worse. I found patient suffering intensely, bowels moving every half hour to every hour, griping pains a few minutes before and during the movements as severe as I ever witnessed. Stools small, composed of mucous and blood and so offensive that one could scarcely remain in the room, and impossible to clear the room of odor in intervals between stools. The patient was weak and very much alarmed by his condition. During the short time immediately following each stool when free from pain he would sink into a profound sleep from which he could scarcely be awakened until the tomnia would rouse him. I gave him the treatment that thirty years' experience had taught me was most effectual in such cases, visited him thirty-six hours after and found no improvement. I reasoned from the offensive nature of the stools that a vigorous antiseptic treatment was indicated and determined to give Viskolein a trial. I left



some capsules and tablets and instructed the nurse to give them alternately every two hours day and night until I returned; my next visit found patient better, stools less frequent, less painful, decidedly less offensive. Continued Viskolein with instructions to give only during the day time, and report the next day. Improvement was steady and uneventful. I met patient on the road a week later, said he felt as well as he ever did except that he was still rather weak.

Case 2.—An old lady 76 years old. She has for a long time been subject to yearly attacks of bowel trouble, usually coming on during the first very warm weather in summer. The attacks usually begin as a diarrhoea and later develop dysenteric symptoms, continues two or three weeks and leaves patient very weak. The stools always offensive. This summer the attack came on as usual. Nothing in her conditions or symptoms lead me to believe that the attack would be milder than usual. Early in the attack I began the use of Viskolein and nothing else, and in less than a week I had the pleasure of seeing the patient entirely relieved.—C. K. Lewis, M. D., Duluth, Ga.

The Bacteriologic Department of Baltimore, under Dr. Royal Stokes, is saving the city thousands of dollars in the way of prophylaxis of communicable diseases. Examinations are made free of charge for all physicians, and reports sent to the sender of the specimens. In connection with the work an examiner of throats has been appointed to make examinations whenever deemed expedient in the case of school children.—*Journal of the American Medical Association.*

The government of Colombia has officially requested the presence and advice of the Swedish leprologist, A. Hansen, in its struggle against the high tide of leprosy that threatens to overwhelm the land. He has not decided yet whether to undertake the task or not. The conditions are by no means so favorable as in Norway, where the number of lepers is comparatively small and the government is pecuniarily equipped. It is very different in Colombia, with its bankrupt and unsettled government and 1 per cent. of its entire population of three and one-fourth millions already effected. The scheme for establishing a great leprosorium on the island of Coiba was found impracticable. A communication to the last *Derm. Cbl.* states that the disease has spread to a frightful extent among the wealthier white families.—*Ibid.*

# SANATORIUM

... FOR THE ...

## DISEASES OF WOMEN.

Drs. MAURY & MITCHELL,

111 COURT STREET,

MEMPHIS, TENN.



This building has been erected especially as a Sanatorium for the treatment of the Diseases of Women. It has been constructed with great care and in accordance with the most approved principles of sanitary science. Its equipment with all the appliances necessary for the treatment of disease is complete. It is the endeavor of those in charge to make this a temporary home, as well as a place of rest, where invalids will find every comfort they may desire. Physicians who wish to send patients away from home for the surgical and medical treatment necessary in this class of diseases, may feel confident that everything possible will be done here for their restoration to health.

For further information DR. MAURY can be addressed at the Sanatorium.

# The Journal

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## Mississippi State Medical Association.

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### Original Articles.

#### Arterio Venous Aneurism Removed From Scarpas Triangle.\*

BY M. J. LOWRY, M. D., MERIDIAN, MISS.

Dr. D. W. M., aged 35 years, family history good, mother and father living, in good health. After a long walk over a farm noticed some soreness on the bottom of his heel (right one), he examined it and the tissues seemed to be bruised, this was on the 20th of April, 1895. August, 1895, the skin became dry and hard, cracked, the flesh protruded, was very sore and painful, so much so he had to walk on the toes to a great extent. I saw the doctor November, 1896, there was a fungoid growth encircling the entire sole of the right heel, which bled freely on being touched with a probe. The doctor said he had used every local application and had taken constitutional treatment; there was a slight enlargement of the lymphatics (glands) in the region of scarpas triangle; there was also enlargement of the glands in the ileo-cocal region; I advised removal of the growth; on February, 1897, with the patient under chloroform, after thorough cleansing with the usual antiseptizing, I removed the growth, curetted the bottom of the wound, applied an antiseptic dressing, it healed rapidly.

Some months afterward the doctor wrote me the enlarged

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\*Read before the Mississippi State Medical Association, April, 1899.



gland was growing rapidly, he had been using pressure, local applications of iodide of lead, ichthyol; the doctor came up and I made an examination, found an enormous growth in the gland since my last examination, with a sacculated portion, which fluctuated. I advised after making a thorough examination, removal, but had him consult some of the fraternity in our town, who agreed that it would be a small and easy operation, that the gland would peel out readily. Doctors do not like to be cut, as well as they like to cut, so the doctor postponed the operation, saying he would go home and arrange his business and get some physician to attend to his practice. The quarantine came and the doctor could not get back the time he expected. On the 18th of November, 1898, he came for the operation; there was no indication of aneurism, no thrill, no bruit, no pulsation in the tumor by pressure on the distal or proximal end; there was no change made in the tumor, it remained the same.

The patient is now very much depressed, anaemic; after consultation with Drs. Clarke, Miller, Izard, H. and G. Tatum of Newton, Peek of Jasper County, and assisted by these gentlemen the operation was begun with thorough antiseptic precautions, an incision in the long axis of the tumor through the skin, fascia; dissection was carefully made sharp and blunt, the tumor did not peel but was closely adhered. As I approached the femoral vessels the fingers were used to peel out the growth as much as possible, feeling the way, cutting on the index finger as a guide; having gotten under the tumor and in order to expedite the work it was forcibly with both hands peeled away from its attachment, with it came a great gush of blood clotted, and otherwise the force was so great that the window in front some distance away was bespattered with the blood, and I was as bloody as a butcher, it was a venous hemorrhage though and both ends of the vein <sup>or</sup> ~~was~~ clamped with forceps and tied, which controlled the hemorrhage at once; the cavity was sponged out, the femoral artery was seen, and felt pumping away all intact; this was considerable relief, for when the hemorrhage showed up so profusely I thought I was in for considerable trouble. The trouble was not ended here, for as I was about closing the wound considerable arterial hemorrhage showed up, but as the patient was quite weak it was thought best to close the wound put on a compress and bandage which controlled the hemorrhage. The patient was quite weak for three days, with a very feeble pulse;



under the use of heart tonics hypodermically reaction gradually returned. He is now well, doing his usual practice, color and flesh ruddy and hard.

#### REMARKS.

There is nothing in our text-books that recommends the entire removal of such aneurisms, compression, ligation of the distal and proximal end are recommended, and the turning out of the clot after ligating. Had I known that I was dealing with aneurism I certainly would not have removed it; so ignorance is bliss this time. These tumors are not common these days; in the days of bleeding they were very common at the elbow, as bleeding was practiced often by the laity. The tumor was connected with the femoral vein, and a large branch of the femoral artery; the femoral vein was tied, and the reason the ligature failed to stop the arterial hemorrhage I failed to tie the artery, and being a branch of the femoral artery the bandage and compress controlled the arterial supply. There are two divisions of this class of aneurism, one where a sack intervenes between the artery and the vein, the other where the communication between the two is direct, the former is arterio venous, the latter is aneurismal varix.

As to the diagnosis we were mistaken. I felt some fears owing to the situation being in the direct line of the femoral vessels and the saculated portion of the tumor. I remarked as I began the operation "suppose this turns out to be an aneurism." After the removal it was clear to my mind what it was, but as there was some doubt expressed by some of the doctors thinking it was probably a mixed tumor of a malignant type, I submitted it to a pathologist, Dr. A. C. Klebs; his report is attached.

The differential diagnosis in some cases is difficult, especially those that do not pulsate. Some errors of diagnosis made by eminent surgeons may be mentioned; for instance the celebrated Pirgoff plunged the bistoury into what he diagnosed suppurating phlegmon of the leg, and was informed by the gush of blood of his error. Ratchet was on the point of opening what seemed to him to be phlegmonous angina, but fortunately he felt a thrill. Bergman, Stephen Smith and others made similar mistakes. We can not be too careful in our diagnosis; both intrinsic and extrinsic symptoms of aneurism have some margin of ambiguity which care in examinations ought to eliminate. Be

careful, gentlemen, and don't make the same mistake that I made, for if you do you might not have such good luck and cure your patient. The simple introduction of a small hypodermic needle would have cleared the case up, which the doctor tells he did, drawing blood, and that it gradually discharged blood for several days afterward; the doctor did not tell me this until after the operation, though he says he thought he did; if he had I would have operated differently.

CITRONELLE, ALA., March 24th, 1898.

DR. M. J. LOWRY, Meridian, Miss.:

Dear Doctor:—We have examined the specimen (tumor), which we received on the 22nd inst., and wish to report the following:

Size of tumor:—9x7x4.5 c.m., weight about 90 grms. Circumscribed tumor with smooth surface of connective tissue, covered partially with fat. Soft, elastic consistency.

On section two larger cavities appear (walnut size) filled with dark red, thick fluid, both cavities communicating through a narrow passage, lined identically as the walls. A few other smaller cavities are situated near the larger ones. The cavities have thin (1 to 1.5 mm) walls, covered inside by a reddish spongy mass (organized fibrin). The walls separating the cavities from each other are thicker, harder and white (fibrous). One larger artery passes through the whole thickness of the tumor, in its neighborhood two lymphatic glands.

Microscopically the walls show lining of endothelium, on nucleated connective tissue cells. The fluid obtained from the cavities contains Hæmatoidin crystals and amorphous blood pigments and fatty degenerated cells (Endothelium)

Diagnosis: Varix aneurysmaticus.

The tumor has not the characteristics of angioma, though having the morphological appearances of a true tumor. We therefore consider it as a varix most probably of the saphens vein and of traumatic origin.

Respectfully,

HYGEIA MEDICAL LABORATORY,

Per A. C. KLEBS, M. D.

Later: Some time in June, 1898, I was called to see the doctor, who had an attack of hemiplegia. From the attending physician, Dr. Frank Walton, I obtained a history of a probable syphilitic infection from a post mortem some years ago. His eye-

sight had begun to fail before the hemiplegic articulation was bad, and his ideas were mixed, his navigation was bad. I found his condition hopeless. He died some days afterwards, although vigorous doses of the iodides were given. I had suggested after the operation that he should take syphilitic treatment, which he did for a while.

### Notes From Practice.\*

BY A. C. HALBERT, M. D., COLUMBUS, MISS.

As we learn from experience it would be helpful to others if more frequently dispensed.

Case No. 1—On or about June 22, 1898, I was called to see Mrs. Maggie W., aged 28, and mother of four children. She was complaining of some trouble and pain in the lower part of the stomach. As women do not have a belly I knew about where to locate the trouble. Gave her a mild purgative and an anodyne and told her I would return the next day and make an examination of the parts affected as I did not have my instruments with me then. In the examination I found the parts in a bad condition.

A lacerated cervix where an attempt had been made to repair, where hard callous tissue had formed and a lacerated perineum. These things occurred about three or more years ago during a hard labor in which I was informed instruments had to be used, killing the child and barely saving the mother. The examination also revealed an early pregnancy with the body of the uterus pressed back and adhered to the rectum and the external os uteri thrown upward toward the pubic arch.

In such a state of existing things you may rely upon it that I took charge of the case with fear and evil foreboding when labor came on. So waiting and watching her during the period of gestation I was called in January 2 and found the os very slightly dilated and a constant trickling away of the amniotic fluid; no pain but a feeling of great uneasiness as coming events cast their shadows before. This state of things continued till evening of January 3. I visited her at about 4 p.m. and found her having some premonitory pains; returning at about 7 p.m. found what is generally known as a dry labor. All the senior members of this association know what this means, a hard and

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\*Read before the Mississippi State Medical Association, April, 1899.

tedious labor. But in this instance the labor was not prolonged, terminating about 10 a.m. in a well developed boy baby. As it is my usual custom to give a teaspoonful of fluid ergot immediately after labor and wait about fifteen or twenty minutes before I repeat the dose, keeping my hand over the uterus to see that it is firmly contracted. In my effort to deliver the placenta I used a little more traction on the cord than I ought to have done, when to my horror it gave way and with it only a small part of the placenta. Now I was in a dilemma, having lost my guide. I introduced my hand into the vagina and my index finger into the contracted and constricted os uteri and found the placenta firmly adhered to the uterus. The text books tell us to peel it off. But, brethren, some of you have been along this way, and can bear testimony with me, that this is no easy thing to do. It is difficult, tedious and tiresome. With the uterus firmly contracted in the effort to expel the foreign substance and the os uteri grasping your wrist, you will, after a few hours of such work, wish for help. So I did on this occasion, sending for my friend Dr. S. He responded promptly and brought with him one of those nice little pocket electric batteries, made specially to see in the mouth, throat, vagina and other dark places, but unfortunately for us it did not work well.

A good index finger with an eye at the end of it is better than any instrument that has yet been devised. After a delay of five or six hours, during which the patient was growing weaker every hour, Dr. D. was summoned to assist us. After examination he expressed a belief in a second fœtus, or, a fibroid on account of the hardness of the uterine body. At any rate time was precious and whatever it might be must be removed.

Chloroform was administered to the almost pulseless patient, giving previous to it a hypodermic of strychnine and nitroglycerine. Dr. D. introduced his hand and succeeded in bringing small parts of the placenta at a time in all probably about one-half. The patient becoming too weak to longer bear the chloroform we were forced to desist, well knowing that it was a battle for life and the chances against us.

After this I resorted to uterine washes, attaching a flexible catheter to the end of a tube from the fountain syringe and introducing the fluid directly into the uterine cavity twice a day. After about ten days Dr. S. and myself attempted to curette the



uterus but failed to introduce the instrument on account of the contraction of the os uteri. Treatment after this was tonics, iron, strychnia, cod liver oil and nourishing diet. The recovery was slow but up to this writing mother and baby are doing well.

MORAL—Never tear the cord away from its placental attachments.

Case No. 2.—CROUP:—I have been thinking for some time of jotting down a few thoughts for the consideration and elucidation by this intelligent body on that dreaded disease of childhood, croup. It is generally recognized by the profession as occurring in two forms: The spasmodic and membranous; of the two the first is considered manageable; of the latter a great majority of the cases die. It generally attacks children between the ages of one year and seven, and strange as it may seem and why it occurs more frequently in male than female children, cannot be explained.

As to the symptoms, there is no excuse for a wrong diagnosis. It speaks for itself, and that peculiar croup cough, once heard is never forgotten.

From the history of the case and generally coming on at night, you may expect a return of it for the next three or four nights, or for several years after. While the diagnosis is not difficult, your prognosis will have to be guarded, and your treatment prompt and persistent. To outline the means that I use after I am satisfied as to what I have to deal with. I first give an emetic, my preference being syrup of ipecac, this I repeat as often as I desire and follow the emetic with one quarter or one-half grain doses of calomel every hour till bowels move freely. After this I give quinine, on account of periodicity of the disease. The syrup generally serves me best, as children take it more readily and it also acts as an expectorant. I have had but little experience in the large doses of calomel thirty to sixty grains, as spoken of by some of the older physicians so highly. Neither antitoxin, although it is worthy of a trial in this disease, in which delay is dangerous.

Swabbing the throat with peroxide of hydrogen served me beautifully in one desperate case where all else had failed and the little patient was at the point of suffocation.

So also has the brown iodide of lime. This preparation I used in two violent cases and two of a milder form of the disease, with very happy results. There have been several articles

recently written in the journals in regard to this preparation, and from my limited experience with it, I heartily commend it to the younger members of the profession. For when you are called up at night to see a case of croup, you will need all the assistance you can get to relieve the little sufferer struggling for breath. And when medical means have failed to give relief, and doubt exists as to surgical interference, always give the patient the benefit of it.

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### Circumcision.\*

By W. W. ROBERTSON, M. D., McCOMB CITY, MISS.

This operation is indicated in every case of phimosis in children, not only because it prevents the various complications of a tight foreskin, which may interfere with growth and general nutrition, but also because it does away with the suggestion of masturbation, which the irritation of a tight foreskin often gives. The term *Phimosis* implies that the preputial orifice is so narrowed that the foreskin cannot be retracted behind the glands. The orifice may be so small that a probe will pass with difficulty. *Phimosis* may be temporary or permanent. In the former case, it is due to the inflammatory swelling or infiltration. In the latter to congenital formation or new growth or cicatricial contraction.

"Congenital *Phimosis*."—This condition is present in the great majority of male infants at birth, and persists up to the fifth or seventh year, at which time there usually takes place distinct enlargement of the preputial orifice so that the fore skin can be stripped back without much difficulty. *Phimosis* when moderate in degree and not giving rise to obstruction or inflammation occasions no symptoms. Its complications are, however, distressing and sometimes cause permanent impairment of health.

The complications are:

1st. Those due to local irritation—*i. e.*, balanitis, balanoposthitis, adhesions, venereal warts, fissures, etc.

2d. Those due to obstruction—Sub-preputial calculi, retained secretion, irritability of bladder, hemorrhoids, hernia and dilatation of the bladder, of the uterus and of the kidney pelves.

3d. Those due to reflex action—Retention or incontinence of urine, arrested development of the penis, premature sexual ex

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\*Read before the Mississippi State Medical Association, April, 1899.

citement, seminal weakness, spastic palsies, simulated hip-joint disease, muscular incoordination, convulsions.

Balanitis and balanoposthitis are caused by the decomposition of the few drops of urine retained in the preputial sac.

This inflammation in its turn often gives rise to warts, fissures or adhesions. As the opening becomes narrower through continued irritation the salts of the urine are deposited and calculi may form. If at each act of micturition the prepuce "balloons" an unusual strain is thrown on the bladder, which becomes irritable.

The varied reflexes owe their existence to the exceedingly rich nerve supply of the part, when there are distinct evidences of local irritation, associated with the symptoms of general nerve disturbance, the possibility of a relation between the latter and the phimosis must be carefully weighed. This by no means implies that a phimosis which excites no local symptoms can be regarded as surely the exciting cause of otherwise inexplicable nerve storms.

Acquired phimosis, when permanent, *i. e.*, cicatricial, differs from the congenital form in that the redundant skin lying in front of the perputial orifice is usually wanting, and the latter is felt as a more or less irregularly indurated band or circle which, instead of rolling back on attempts at retraction, slowly stretches, tightly embracing the glands. When temporary, acquired phimosis is due to swelling, usually inflammatory or congestive.

Permanent phimosis, whether congenital or acquired, should be treated by operation whenever it is responsible for local or reflex symptoms. As a prophylactic against gonorrhea, chancre, chancre and cancer the operation is desirable, even when the condition excites no trouble.

In preparing for the operation the parts are thoroughly washed with hot soap-suds, the preputial sac being cleansed by means of injections of 1 to 40 carbolic in 1 to 4000 sublimated solution; the ordinary antiseptic precautions are observed. The penis is passed through a small opening made in the center of a sterilized towel and the latter is then spread out, thus preventing the wound surfaces from coming in contact with the skin which has not been cleansed. The instruments required are a pair of fenestrated circumcision forceps, although the fenestra is not necessary, a knife sharpened to a razor edge, a pair of scissors which cut on the points, artery forceps, a pair of dissecting for-

ceps, and small, straight needles; have plenty of hot and cold water near by, with sponges, etc. The phimosis forceps are applied loosely to the fore-skin so that the fenestra lies just over the prominent ridge of the corona and with its long axis parallel to this ridge, that is from above downward, and from behind forward. Maintaining the forceps in their relative position to the skin surface by light pressure, the end of the prepuce is drawn forward and the forceps are gently closed, thus pressing the glands of the penis behind them. As soon as the glands are entirely behind the forceps they are closed firmly, and the prepuce is divided by carrying the knife along the fenestra with a sawing motion. On releasing the forceps the skin at once retracts behind the corona, leaving the glands still covered with the mucous membrane; a band of integument often remains about the perputial orifice. One blade of a pair of scissors is slipped within the latter, care being taken that the meatus is not entered, and the prepuce is split along the dorsum to within one-sixth of an inch of its reflection from the coronary sulcus. This part of the operation is sometimes difficult, on account of adhesions. These should be thoroughly stripped. The mucous membrane has been thus split and stripped, each flap of it drawn away from the penis and trimmed off by means of the scissors, leaving a circular band of mucous membrane one-sixth of an inch in width, passing completely around by the corona. Bleeding points are seized in the forceps and are either twisted or ligated with the finest catgut.

By the oblique incision just described the frænal arteries frequently are not divided. When the arteries are cut it is safest to tie them, on account of secondary hemorrhage. The sutures employed should be of fine silk threaded on small, straight needles. In infants, fine non-chromicized cat-gut is best, since this does not require removal. Some prefer the ordinary sewing needle, (round pointed), instead of the edged surgical needle, as it does not exhibit the tendency to cut out, and the consequence would be a ragged edge, and possibly sloughing, and separation of the edges, and require more time for healing. The first suture should be applied at the frænum. It includes a narrow strip of the skin at the position of the raphe and should take a fairly deep grip on the tissues of the frænum. As it is tightened, care must be taken that the skin is not inverted. This cannot well happen if the needle is inserted near its cut



edge. The next stitch is in the mid dorsal region. A stitch in either side, midway between the two already described is often sufficient, though in adults it is often safer to apply a complete row of sutures, since the irritation incident to the operation often occasions erection, which may tear loose the feeble adhesions formed in the first few hours. The dressing may be either dry or wet.

In dry dressing the line of incision is dusted with Iodoform or acetanilid, then covered with a thin film of Bi-chloride of cotton, and over this is painted fresh Iodoform collodion. The penis is then wrapped in absorbent cotton, and bandaged in the erect position against the pubis and lower belly surface, either by the crossed of perineum or "Jack strap" and the patient is allowed to be up and about.

The wet dressing will in the long run give the most satisfactory results. A narrow strip of lint or gauze, 16 inches long, split at one end, is dipped into an anti-septic solution (penol sodique), one part, water five parts, or boroglyceride 25 per cent, one part, water three parts, and secured in place by tying the split end. This dressing is kept wet by the anti-septic solution, which is dropped on at short intervals. In children it is maintained in place by the pressure of the diaper. Cure is usually effected in four to seven days. Healing should be by first intention. The stitches can be removed on the fifth day, and after that the line of incision may be dressed with a narrow strip of lint, covered with a thick layer of boric ointment and held in place by adhesive plaster, or the dressing may be of cotton and collodion.

The complications of circumcision at the time of operation are hemorrhage and oedematous swelling of the loose cellular tissue, particularly that near the frænum: If this be the case I would use Ichthyol 10 parts and lanoline 100 parts, locally. I have a case now that I am treating with the above.

Recurrence of Phimosis.—When too much of the mucous of the fore-skin has been left, Phimosis may recur in a more severe form than that for which the original operation was undertaken, cicatricial tissue along the line suturing sometimes contracting very rapidly. A strip of mucous membrane wider than one-quarter inch should never be left. If narrower than one-sixth inch it is somewhat difficult to insert the sutures satisfactorily. Some prefer to use cocaine in the operation of circumcision, of

which I have never practiced, and will now leave my article with you for discussion.

### Some Facts About Yellow Fever.

By H. M. FOLKES, M. D., BLOXT, Miss.

Fresh air and sunshine are among the best of disinfectants: Yellow fever is a germ disease.

A person can have it twice or oftener, though the percentage so having it is less than five.

A second attack can be as severe or more so than the first.

It is sometimes so mild as to lead to grave doubts as to the diagnosis, the latter only being settled by the number of cases all presenting the same symptoms and some few getting sicker than the others.

Change of latitude not necessary to suffer a second attack. The germ lives on a certain kind of mold.

Freezing will not destroy it, though seven hours' exposure to sunshine and fresh air will.

Frost or freezing entirely stops the growth of the mold, and as this is essential to the life of the germ, it becomes destroyed.

Heat, moisture and darkness are essential to the growth of the germ.

From ten days to three weeks are required for a place to become so thoroughly infected that a visit to it means an attack of yellow fever to a susceptible person.

Fomites is a term applied to anything capable of conveying infection.

Soft or porous materials are considered as being the most dangerous fomites.

Ninety-five times out of a hundred when yellow fever gets to a place it is carried there by some person either already sick or else developing the disease after arrival.

We have no reliable record of its being kept over in clothes or such stuff, or of its being conveyed from place to place through shipments of goods. This statement is made with due deliberation and is based on the fact that all such claims of conveyance of infection are offset by the presence of the disease in some other part of the country and the very great probability that it was carried by an individual. So far as I am able to discover by close examination, in every instance of this claim of material

transmission, there has been a counter claim of infection by individuals. These statements do not apply to bedding or second hand clothing in the same season, because if these materials were kept in a dark, damp place where the mold required for the germ's propagation can grow, then the chances for conveying infection are many.

Claims of infection in the open air are always open to grave doubt, and in fact there is not a genuinely authentic case in any records that I now have at hand.

Of all the documents examined by myself in this train of thought there is not an example of infection conveyed by physicians, which is not open to very grave doubts. Of the reported instances, invariably have they been in a thoroughly infected town, where it was almost impossible to tell where or where not infection might exist during the epidemic, and the further fact that it is almost impossible to discover just how much truth people are telling you about things.

Yellow fever mortality has been exaggerated in the past and this has given rise to more fear than is justified.

The mortality has been constantly on the decrease since 1878, and only in exceptional localities has it been higher than 10 per cent. since 1853, the past three years has an average of about 4 per cent.

Be it remembered that official mortalities are as a rule two or three times too great, from the well-known fact that all deaths are reported and not more than one-half or one-third of the cases.

Yellow fever is just as amenable to measures of isolation and disinfection as are smallpox, scarlet fever, measles, diphtheria, etc.

As are smallpox, diphtheria, etc., preventable diseases so also is yellow fever.

To prevent the spread of yellow fever, three things are essential, namely: Diagnosis, isolation and disinfection.

Diagnosis, as before mentioned, is at times almost an impossibility and as this is a *sine qua non* to preventing an outbreak the question arises as to what method is to be pursued in the management of fevers down here in the south. Any case of supposed bilious fever might really be yellow, so what is to be done? The location will, in a large measure, be a factor in settling the question. If in the interior and there is no yellow fever

reported anywhere in the country or neighborhood, the probabilities are great that it would not be yellow, whereas on the seaboard and cities so situated as to be practically seaboard, any and probably all cases should be handled with the view that possibly they are yellow fever, at any rate until diagnosis is settled.

These are radical views, but they are just as easy to carry out as are the proper restrictions thrown around a typhoid patient; and consist of a practically empty, well ventilated and sunshiny room, for anybody in the family getting sick between April 1 and October 1, patient only in bed, rubber sheeting or oiled cloth under sheet which has been bichlorided, bichloride solutions for dejecta and all soiled bedding and clothing, changes of bedding and clothing daily and preferably washed in bichloride solution and not rinsed, no visitors between dates mentioned, unless diagnosis of some other disease positive and then not until at least ten days after onset of fever, on recovery or death disinfection with sulphur and bichloride.

In the foregoing, diagnosis is safeguarded and isolation and disinfection are practiced to a degree that practically makes things safe, especially as the primary point of infection is the lungs.

There are finer and more hair spitting points about disinfecting than are given above, and of course if a physician can get an opportunity to add any safeguards, why he should do so, but a careful observance of even the foregoing will prevent any more epidemics of either fever or quarantine.

Last and very important it is necessary that we doctors do everything in our power to teach the people these facts, so that we may secure their co-operation. Above all else, brethren, let me beg of you that panic claim you not. On the contrary, keep cool and be a tower of strength to your community as the ideal physician always should. I tell you that the greatest horrors of yellow fever are the heartrending scenes which come with "Man's inhumanity to man," rather than anything connected with the disease itself.

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### History and Treatment of Three Cases.\*

BY JNO. DARRINGTON, M. D., YAZOO CITY, MISS.

I believe the most interesting paper that could be presented

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\*Read before the Mississippi State Medical Association, April, 1899.



to the association would be the results of reliable scientific original investigation, but this delightful field of work unfortunately falls only to the lot of a favored few.

The average doctor in his daily grind can do no more than study carefully the cases as they are presented in his practice, and in their treatment apply the principles of the best authorities well mixed with a liberal amount of common sense.

I shall describe very briefly the history and treatment of three cases.

The first is a case in which a renal calculus became impacted in the ureter. I was called to see a man about 35 years of age. He had suffered severely in previous attacks but had always been fortunate enough, after several hours of severe pain, to have the calculus pass into the bladder, which, of course, gave him instant relief.

I was informed before leaving home that he had been in severe pain for thirty hours and during that time had taken iiss grs. sulph. morphine which had given but little relief. From the history of the case I suspected an impacted renal calculus and went prepared for an operation. I found him suffering greatly. Urine contained a small amount of blood, pulse 120 and temperature 100 deg. Fahr.

He had very thin abdominal walls and by palpation I could feel distinctly the ureter greatly distended. I explained to him his condition and advised an operation, to which he readily agreed, but stated positively that he would not take an anesthetic. Urging did no good so I concluded to begin with cocaine and expected him to call for chloroform very soon, which he failed to do.

I sterilized the skin and had the few instruments needed, including a hypodermic syringe, thoroughly boiled; also boiled two sheets, one to go on the table and the other I placed over the patient, making a hole in the sheet large enough to expose the operative area.

Using a 1 per cent. solution of cocaine, which had been boiled, I injected it carefully along the proposed line of incision, first near the skin then much deeper into the muscular tissue.

I selected the extra peritoneal route making a long incision extending from a few inches below the kidney in front of the quadratus lumborum muscle, obliquely downward and forward above the anterior superior spine.

I cut down through the layers of muscle being careful not to open the peritoneum which by blunt dissection through the cellular tissue was carefully pushed back until the greatly distended ureter was exposed, showing a double kink surrounded by bands of fibrous adhesions. The calculus was firmly impacted at the first sharp angle which I have attempted to illustrate by this rough drawing.

After breaking the bonds and straightening the ureter I was able by careful manipulation to slip the stone through the kinks and it was at once swept into the bladder by the force of the urine above.

To overcome the tendency of the ureter to lie in its former position I placed a catgut suture at A, anchoring the ureter so as to make a comparatively straight canal.

The wound was closed by interrupted sutures of silk worm gut and as I felt sure of the aseptic technique no provision was made for drainage. There was no symptom of pain until I began introducing the sutures.

A few weeks later I examined the bladder but did not find the stone. The patient had another attack of renal colic about three months after the operation but the calculus passed through which it might not have done had the ureter not been straightened.

Case II—A girl baby three months old was admitted to my sanitarium on January 12, 1899; she had a double hare lip and double cleft palate extending entirely through the soft palate.

The portion intervening composed of bare gum and a very small amount of skin was attached to the end of the nose. The deformity was horrible. There was just enough cutaneous tissue covering this intermaxillary bone to make the columnae nasi.

I operated on the baby, assisted by Dr. O. H. Swayze and a trained nurse. No anesthetic was given. With the usual aseptic precautions I thoroughly denuded the gum surface that I proposed to bring in opposition I then removed through the roof of mouth a V-shaped section of bone from the central piece and pressed the end down in line with the gum in front, completely filling the gap.

The fit was good and did not require wiring to hold it in place; in fact, the pressure exerted by the lip after it was brought together was sufficient to keep the bone in place.

We then directed our attention to the lip. A liberal dissec-

tion of each cheek from the bone was required in order to allow the lip to be opposed without undue tension. The bleeding, which was very free, especially from the divided septum, was readily controlled by sponges dipped in very hot water.

In freshening the borders of the lip an incision should be made so that when the sutures are introduced there will be a slight projection on the vermilion border. Unless you do this the contraction afterward will leave an indentation. After introducing the central line of silk sutures a supporting suture of silk worm gut was passed from cheek to cheek and drawn tight so as to leave absolutely no tension on the stitches in the lip. The method of fastening this suture with buttons and perforated shot is important, for later it may be tightened, if necessary, by wrapping a piece of gauze beneath the buttons. No dressing was applied. After each feeding a trained nurse cleaned the wound thoroughly, first, with peroxide hydrogen and then applied freely a saturated solution of boric acid.

There was no infection and the parts perfectly united in ten days. The silk sutures were removed on the fourth day; the retentive suture was allowed to remain until the tenth day; adhesive plaster was used for another week to prevent any strain on the freshly united tissue.

By using the central piece of bone to fill the space below you get a solid alveolus and a very satisfactory result.

The last case is a very simple one and I outline the treatment in order to impress the value of strict aseptic precautions in every surgical case that you treat.

I was called to see Mrs. H. on March 22, 1899, aged 47. I learned that she had been passing some blood from the vagina for three or four weeks, and during that time had had several severe hemorrhages. She was bleeding freely at the moment of my arrival; was extremely pale from loss of blood, and in a state of collapse.

In a case of an emergency like this where every moment is valuable, in your haste you are likely to neglect your aseptic precautions, but to infect a patient in such a weakened state would certainly be a grave mistake. I cleaned my hands in 1-500 hyd. bi-chlorid. sol. and a vaginal speculum was dipped in pure carbolic acid washed in alcohol. This method of sterilizing instruments only requires a few seconds and is certainly worth the time expended.

I then placed the patient in Sim's position and after removing a large blood clot from the vagina I saw projecting through the cervix a tumor which was bleeding freely. I discovered that the growth was attached to the uterine wall well within the cavity and that the constriction of the internal os had caused it to break down and bleed. With a pair of clean polyp forceps I twisted the tumor until it divided beyond the internal os and the hemorrhage ceased. I then thoroughly cleaned the vagina cervix and cervical canal so that no septic material would be swept into the uterus when I introduced the gauze. I used cor-bolated gauze and packed as much as possible into the uterine cavity and cervical canal and then completely filled the vagina.

The patient was in a dangerous state from loss of blood; an intravenous injection of a saline solution was badly needed but I had no way of giving it. I lowered her head, gave inhalations of amyl nitrite and hypodermic of strychnine, also applied heat to patient's body. She reacted and the improvement was rapid. In two days her condition admitted of her being moved on a stretcher and she was brought to my sanitarium, where I could at least give her the benefit of a clean operation and know that she would get intelligent nursing.

The packing was changed daily and the uterus irrigated with a boric acid solution. In a few days her condition was such as to admit an operation. I removed through the cervix the remaining portion of the tumor which appeared to be an elongated sub-mucous myoma attached to the anterior wall of the uterus near the fundus. The patient was able to return home in ten days. There was no evidence at any time of the slightest infection.

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### Irregular Menstruation in Young Women Due to Anæmic Conditions.

By H. EDWIN LEWIS, M. D., BURLINGTON, VT.

*Resident Physician Fanny Allen Hospital.*

The young physician just starting into practice cannot help but be impressed with the frequent occurrence of menstrual disorders in young girls during the period just succeeding the age of puberty. The metamorphosis of a girl into a woman, consisting as it does of structural and functional changes throughout her body, in many instances leaves behind pronounced altera-



tions in the quality or even quantity of the blood current. How common it is to have a mother bring her daughter to the physician and say, "Doctor, I would like to have you do something for my daughter. For nearly a year she has been losing interest in everything and seems to be completely worn out. She has no appetite and absolutely no ambition for work, study or play. She does not lose flesh or grow thin at all, but her color is so poor and she seems so weak that I fear she is going into consumption."

Inquiry on the part of the doctor elicits the further information that the young lady in question is 16 years old or thereabouts, and that she is a school girl. A year or two ago she first menstruated, and since that time has been unwell only twice, or at irregular intervals varying anywhere from three to nine months. Her bowels are either constipated or the reverse, and she may complain of headaches, vertigo, palpitation of the heart, insomnia, indigestion, etc. The pale face with its sallow greenish tinge, the bleached tongue, the colorless conjunctivæ and finger nails, tell well the tale of impoverished blood. Combine the history with the objective symptoms and the diagnosis is clear of chlorosis or green-sickness. The absence of cough or pulmonary symptoms excludes the dreaded "consumption," but we have instead a condition of the blood in which the essential constituents are diminished and the whole quality of the life-giving current so depreciated that the various organs of the body are unable to perform their normal functions. The uterus is small and illy developed and the supply of rich blood it so urgently requires in its developmental state is not to be had. Is it any wonder, then, that the chlorotic girl does not menstruate regularly? It is a great wonder that she ever menstruates at all. Correct the anæmic or impoverished condition of her blood and the physiological function of her uterus will be resumed as naturally as that of any other organ.

How this chlorotic condition can best be corrected is the next question and one which because of its frequency concerns every practising physician. Countless remedies have been presented to the profession, but far and foremost above them all is iron, notwithstanding certain high authority to the contrary. Arsenic is certainly valuable, but it ranks far below iron or even manganese in the therapeutics of anæmia. In order to be most efficacious, however, the iron should be in its most readily assim-

ilable form, and until recently the carbonate and albuminate have been supposed to present this requisite in the highest degree. But since manganese has grown in favor as an adjuvant to iron, a new preparation has been submitted to the medical profession and in every way it has proven itself an ideal one. I refer to Dr. Gude's preparation of the peptonate of iron and manganese, known as *Pepto-Mangan*. This admirable combination of iron and manganese is readily taken into the human economy and appropriated to its needs, without deranging the weakest alimentary tract, or hindering in any way the normal processes of digestion, assimilation and excretion. It should be given in water or milk in teaspoonful doses after meals, and its administration is invariably followed by the results desired.

But in order that the medical treatment of chlorosis may be most valuable and efficient, it should be augmented by auxiliary treatment consisting of careful attention to diet and exercise. It goes without saying that the food of an anæmic girl should be most nutritious and particularly abundant in albumen, while the exercise should aim to provide greater quantities of oxygen in the form of pure air, without lowering the vitality. Walking, skating, tennis or bicycling in moderation are all able to supply the demand for exercise.

Treatment laid down on the above lines, followed out in every instance with good habits of hygiene and a careful observance of nature's demands, will regulate the various functions of the body, and the menstrual function will prove no exception to the rule.

The following cases will substantiate the above:

Case I—Miss C. S. K., 17 years old. Decidedly anæmic and much troubled with constipation; first menstruated at 14, since which time she has never been regular, flowing profusely sometimes twice a month, and other times going three or four months without menstruating at all; has frequent fainting spells and a decided anæmic heart murmur. At time of coming under observation had not menstruated for two months and ten days; treatment consisted of a regulated diet, tablets of aloin, strychnine, belladonna and cascara sagrada, one each evening until bowels were regular, and teaspoonful doses of *Pepto-Mangan* (Gude) after meals. Gradually the fainting spells and heart symptoms disappeared, and on the fifteenth day after commencing treatment she began to menstruate, the flow being natural in quan-

tity and continuing four days. Treatment was continued and twenty-nine days later she menstruated again, continuing this time five days. Soon after this the Pepto-Mangan was stopped. From now on, up to the present time, a period covering three months, her menses have appeared regularly every twenty-eight days. Her whole appearance has changed and in every respect she appears well and strong. Period of administration of Pepto-Mangan fifty-five days.

Case II—Miss K. M., age 20. Menstruated first at age of 15 and was fairly regular for three years, but since an attack of typhoid fever two years ago has never known when she was going to be unwell. Patient was not thin, but face was pale and yellowish, hands and feet were cold "all the time," and her whole condition was one of "blood poverty." Complained of frequent attacks of diarrhœa following constipation. Treatment consisted of plenty of outdoor exercise, good food with abundance of milk, and Pepto-Mangan (Gude) in teaspoonful doses after meals. Her restoration to health has been rapid and satisfactory. She has menstruated three times since beginning treatment, the longest interval being thirty one days. Says she is all right, and her appearance certainly sustains her words. In this case the administration of Pepto-Mangan covered a period of thirty-six days.

Case III—Miss D. L., school girl, aged 14. For two years she had been troubled with headaches, dizziness and short breath, fainting away at the slightest provocation. Had no appetite, and, as her mother expressed it, "for the last six months has been going down hill pretty fast." Had been treated by a physician for heart disease, but received no benefit. Menstruated first seven and a half months ago, "but had not seen anything since." Examination showed heart to be normal, although it was a trifle fast, and a slight murmur could be determined when patient was in a recumbent position, evidently anæmic in origin. Lungs proved to be all right. Her general condition was anæmic, and she was put on Pepto-Mangan (Gude), a teaspoonful after meals, and sent into the country where she could be out doors most of the time and have plenty of eggs and milk. A letter from her mother says that she has changed so that she can hardly believe it is the same girl. Furthermore, her menses appeared twenty-one days after starting the Pepto-Mangan and returned again twenty-nine days after. The Pepto-Mangan was

ordered stopped, and since then I have not heard direct from the patient, although from her father I learn that she is "perfectly well" and coming home soon. Period of administration of Pepto-Mangan fifty-six days.

Case IV—Miss L., aged 18. Had never menstruated. Her general appearance was one of profound anemia. A careful examination eliminated any abnormality of genital apparatus. Organs normal in relation, but undersized. Prescribed Pepto-Mangan in teaspoonful doses after meals and gave general directions as to diet, etc. Began to menstruate thirty-two days after beginning treatment, the flow continuing one week. Twenty-nine days later she menstruated again. At the present writing she is still under treatment and is due to menstruate in seventeen days. Her whole condition is very much improved.

THE Marine Hospital Service has succeeded in stamping out yellow fever in the Soldiers' Home near Hampton. They are being liberally praised for this, as they should be. This outbreak is another proof of two of our contentions, one that yellow fever is usually carried to a place by an individual either going there sick or else developing the fever after arriving, the other is that it is amenable to the so-called stamping out, and being gotten rid of.

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WE note, and it is rather an amusing thing to see, how some of the newspapers of Washington have been saying that it was not yellow fever. In the next breath they give all manner of praise to the service for stamping it out. 'Twas ever thus. I think it well for doctors' to retire as sanitarians. As a general thing people object to anybody's trying to keep them from getting sick. The best thing to be done in my opinion is to let the newspaper editors have entire charge of health affairs and let the doctors simply practice medicine.

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Contributors to this journal can secure reprints of their articles, in pamphlet form, at very low rates, by addressing The Biloxi Herald, Biloxi, Miss.

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## Editorial.

H. M. FOLKES, M. D., . . . . . BILOXI, MISSISSIPPI,

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Those intending to contribute papers in any of the sections will please send copy of same to chairman of section in which it is written so that those appointed to lead in discussion may have opportunity to prepare themselves along line written upon. This should reach the chairman not later than March 15, 1900. The names of those appointed to discuss the various papers will be announced later, as the chairmen make selections.

### THE PROBLEM BEFORE US.

Quarantines—land quarantines—must go. Their usefulness, if they ever had any, has departed. As measures of pro-

tection they have proved their ineffectiveness. Their whole value to-day is as a commercial weapon. Inland or land quarantines are relics of our former ignorance of the etiology of the epidemic diseases. Now that we are in position to speak authoritatively on the origin and propagation of nearly all epidemics, it is time that we utilize that knowledge and put a stop to such disastrous measures as quarantines. Nearly two years ago the editor had the honor to read a paper before the Mississippi State Medical Association on "Our Duties as Public Educators." This paper was intended for the two-fold purpose of educating the doctors and the people. In it were laid down measures whereby we could prevent an epidemic of yellow fever. It is needless to repeat here, to any extent, the text of that article, as the sum and substance of it consisted in three things: Notification (truth), isolation and disinfection, to which is now added diagnosis. With the proper measures looking to the above ends, all health officers should be familiar. Now at this point two very important considerations arise. The first is as to the diagnosis, the second to its announcement and the effect on the public.

Since the beginning of medicine diagnosis has been the all-important thing and the history of every yellow fever epidemic we have had shows the same old story of quarrelings and bickerings over the first cases, and especially is this true of the older members of the profession who are invariably the last to give in and acknowledge the fact. This is really the gravest problem connected with the whole question, and when its solution is effected the remainder is to an extent easy. A practical solution lies in considering all cases that are at all suspicious, as being really yellow fever until the contrary is proven. On the face of it this seems quite an extensive undertaking, and so it is, but it can be done, and here in the south, where we are liable to be confronted by the yellow demon and its ghost for the next ten years, it were best that we look the matter squarely in the face. In another place we give a summary as to the best method of handling fevers in the south looking upon each case as possibly being yellow fever.

The second question under consideration is notification or announcement of the presence of the disease. I am fully aware that nearly the entire commercial world is against this step as is also quite a proportion of medical men, but the more I have

to do with health matters and the more thought I bestow upon it, the more firmly am I convinced that "honesty is the only policy." When the people understand, and they will understand if we doctors do our duty and teach them, that yellow fever is just as amenable to scientific and safe handling as are smallpox, typhoid, scarlet fever, measles, etc., then will an announcement of fever carry no fear of quarantine and consequent annihilation of business. Then everybody will say let the doctors handle it and this will be done and peace will reign in the land. Of course in those communities where the people are not amenable to reason, the shotgun will be the ideal method of keeping off the disease. This is only likely to occur, however, in the small places, as commercial relations with other places are great educators and after one or two experiences with quarantine a large-sized business community will not care for another dose.

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THIS summer we have had two that we know of, introductions of yellow fever through northern ports. How many others there may have been no one can tell. There is this about it, that somebody has been negligent and it behooves the Supervising Surgeon General of the Marine Hospital Service to find out the leakage and take charge of the station so guilty. That Vincennes case could just as easily have gotten to Memphis or New Orleans and then we would have had an additional focus to fight. We of the south are in just as much danger from Cuba as though we had no quarantine barriers to protect us, if this kind of doings is to continue.

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AT times in the world's history conservatism is shattered and popular upheavals undertake to right existing or imaginary wrongs. How well they succeed is a matter of history. Just at this time down here where we live there is a great public outcry at the State Board of Health. They are accused of being frauds, fools, thieves, etc. In a state where the board is composed of twelve men whose professional and civic lives are a matter of pride to their several localities as are these, it is a source of no little regret to see their every action assailed by a no small proportion of people. The claim is made that the board has lost the public confidence. A moment's consideration should show the error of this. Of the twelve members of the board five are

elected by the State Medical Association. It happens that the men who have managed the health matters of the state for the past three years have been these five members, Hunter, Haralson, Gant, Dunn and Quinn. Of these the first three have been most prominent owing to their being officials of the board. At the April meeting of the State Medical Association these five were re-elected, except Dr. Quinn, to serve for the next four years. What better endorsement three men could have than the unanimous vote of their confreres I fail to know what it could be. They were accused of quarantining New Orleans unjustly, after having given out a statement that a few cases of yellow fever did not justify a quarantine. This accusation was as unfair as a little country paper can usually be in its perversion of facts. New Orleans was quarantined not because she had three cases of yellow fever, but because there were unknown foci of infection in the city, and these unknown infected\* places had given yellow fever to three places in the state, Mississippi City, Pass Christian and Jackson. The board is perfectly honest in its statement that they would not quarantine a locality provided all foci of infection and all exposures were known and isolated. They have been accused of sending men skilled in the diagnosis of fever to places to make it yellow fever. How unfair this is may be judged by the fact that of all the cases reported as yellow fever this year in this state and New Orleans in each and every instance the diagnosis had been made or suspected before either Haralson or Gant had seen them. At Mississippi City Dr. Harry, the local physician, and Surgeon Murray of the Marine Hospital Service had made up their minds as to its being yellow fever fully a day before Dr. Gant saw symptoms sufficiently pronounced to justify him in making a positive diagnosis. At Pass Christian the case was diagnosed by Dr. Washington on his own responsibility as being yellow fever and Dr. Gant never saw the case at all. At Jackson the case of Major Porter was diagnosed by Drs. Todd and Hughes, neither in any way connected with the State Board of Health, and diagnosis confirmed by Surgeon Murray of the national government. Now to any fair-minded person if this looks as though the State Board of Health were trying to impose upon the people why they will be ready and willing to step down and out. In New Orleans it has been the same thing, every one of the reported cases had been diagnosed before being seen by a representative of the Mississippi State



Board of Health. It has been charged that they simply desire to spend the appropriations: A glance at the amount of appropriations for the past ten years and the amounts turned back by the board into the public treasury as unused should be enough to correct this misapprehension and misstatement. For the decade ending with 1897 there had been appropriated for and turned over to the state board \$210,000. Of this amount \$120,000 was turned back into the state treasury unused. The principal members of the present board have been on the board for all these ten years and their sterling worth and integrity will rise higher and higher in public estimation as the years roll on. Mississippi, through the representatives of her 2,500 physicians, has endorsed her State Board of Health, and with this endorsement all the ravings of an ignorant and prejudiced press, be they few or many, the board can rest in full knowledge of always having done their duty as they saw it.

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## Reports of Societies.

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### PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

*Regular Meeting September 5, 1890, as appearing in the Memphis Lancet for October.*

The President, Dr. B. F. Turner, in the chair.

Present were Drs. Turner, Alfred Moore, McKinney, Porter, Buford, Krauss, Barton, F. A. Jones, Ellett, Black and Williams. Visitor, Dr. W. M. Ball of Mississippi.

The president read a paper on "Neurasthenia." Until 1869 the neurosis were classed together, whether of hysterical, toxic or other origin. Baird then described a condition which he termed, and which is now known as, neurasthenia. It occurs between the ages of 20 and 50, affects both sexes, all races, especially the emotional ones, and is common in high altitudes. It is predisposed to by heredity, a mercurial temperament, excesses, trauma, exhausting diseases, emotional shock and possibly excessive venery. Hodge showed that changes occur in active ganglionic cells analogous to those found in secreting glands, and proved that nervous energy is derived from chemical metabolism. This is the underlying pathology of neurasthenia, viz: Cell exhaustion from overactivity. The symptoms are deficient,

but never lost function, and manifest themselves in every tissue and organ of the body. Headache, backache, visual fatigue, tinnitus aurium, muscular weariness, gastro-intestinal, circulatory, menstrual and mental disturbances. There may, in the male, be emissions and sexual impotence. Inability to concentrate the mind, emotional irritability, with a tendency to pass to graver mental disturbances, are seen. A case was mentioned which passed from neurasthenia to hysteria and thence to incurable mania. The onset is insidious, the development slow, with remissions, and the course chronic. The diagnosis is to be made from hysteria, hypochondriasis and incipient organic disease. The treatment is to be conducted on hygienic and physiologic lines, with due regard to the importance of rest.

Dr. G. G. Buford said that the value of Hodge's studies could not be overestimated. They proved chemical changes to be present during nervous activity, and this is the key to functional nervous disorders. Excessive stimulation ultimately results in atrophy. He does not believe much in the influence of heredity. He mentioned a case of neurasthenia which passed to melancholia, then acute mania, with recovery and a continuance of the neurasthenia.

Dr. E. C. Ellett said that the neurasthenic with eye symptoms derived little benefit, as a rule, from eye treatment. No glasses enable them to read comfortably, or relieve their eye pain, headache and other phenomena found in other cases to be due to eye strain. Some cases, however, have their origin in eye strain, and in these eye treatment will relieve, not only their eyes, but their remote symptoms. Regarding the diagnosis, the eye symptoms of neurasthenia are not characteristic, while in hysteria the hysterical amblyopia, reversal of form and color limits of the field of vision, and conjunctival anesthesia, are quite characteristic. The pupillary, perimetric and optic nerve symptoms of organic disease are well recognized, and aid not only in diagnosis but in localization of the lesion. In regard to the throat and nose, we recognize hay fever, aphonia and *globus hystericus*, as sometimes of neurotic origin.

The president, in reply to a question from Dr. Barton, said he could not diagnose between neurasthenia of emotional origin and "masked goitre," *i. e.*, exophthalmic goitre, without goitre or exophthalmus. In reply to a question from Dr. Krauss, he does not venture to be positive as to the diagnosis between neu-

raesthesia and early organic disease until reactions of degeneration can be demonstrated. He does not think the effects of overstimulation of the nervous centers are permanent, but more like a temporary exhaustion. He does not find the application of Weir Mitchell's rest cure practicable, but obtains rest by a change of occupation and surroundings, and avoidance of mental worry.

Dr. Ellett made a report of "Two Months' Eye Service at the City Hospital."

(a) Cataract Extractions. Eight operations had been done with eight successes. He prefers the combined to the simple method, and six of the cases were done in this way, *i. e.*, with iridectomy. Holocain is the preferable anesthetic and is now used exclusively in cataract operations by Knapp and others of large experience. No bandage is used, but a light dressing of gauze and cotton is held in place by strips of adhesive plaster. The patient is confined to bed till the corneal wound has closed.\*

(b) In enucleations, for the purpose of securing the best stump for an artificial eye, Mules of Manchester performs evisceration, and places a glass sphere in the cavity of the sclerotic. Morton has devised a method of placing the sphere in Tenon's capsule and uniting the muscles and conjunctiva over it. This method has been used by Dr. Ellett, with Bryant's perforated aluminum spheres instead of the glass balls. By using silk to unite the muscles, instead of catgut as Morton does, there is not much probability of the sphere becoming displaced. The sphere remains in the tissues permanently, and an artificial eye placed over it has a full and natural look and very considerable motion. In one case Dr. Ellett has observed the sphere in place after two years, and causing no inconvenience.

Dr. W. J. Lane was elected to membership.

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## Public Health.

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SANITARY EDUCATION OF THE PUBLIC IN INDIANA.—The State Board of Health of Indiana has issued a very comprehensive circular concerning smallpox, dealing with vaccination, the

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\*These cases will be reported in full, with others, later.

diagnosis of the disease and general directions for the management of smallpox cases, including isolation, care of the sick room, disinfection, etc. Appended to the circular is the following:

"Address to the Public by the Indiana State Medical Society, upon the Prevention of Tuberculosis and Smallpox."—It has ever been the duty and the pride of the medical profession to try to protect the public against avoidable diseases, bodily injuries and unsanitary methods and conditions of life. The physician has always been taught, and the true physician has always acted upon the conviction, that he was the guardian of the public health, and that his constant endeavor should be to prevent as well as to cure disease. The Indiana State Medical Society, now gathered in its fiftieth annual meeting, having heretofore repeatedly, as the times seemed to indicate, exerted its influence to promote the public health, and being mindful of its continuing duty in this respect, feels called upon to address the public upon the prevention of two most serious diseases, smallpox and tuberculosis: the one, the pest of the last century but now happily avoidable by well-known means, the other the present but not hopeless scourge of our race. The State Medical Society feels warranted and impelled to address to the public the following proposition concerning tuberculosis: 1. That tuberculosis is caused by certain known germs. 2. That while heredity may in many instances furnish a favorable soil for infection, in a large proportion of the cases the disease is acquired after birth. 3. That the germs are present and demonstrable in the products thrown off from the seat of disease in men and animals. 4. That these germs may, especially within doors, retain their life and virulence for a long time, being demonstrably capable of reproducing the disease. 5. That while in most cases it is impossible, on account of the insidious development of the disease, to demonstrate the exact time and place of infection, the fact of such infection is unquestionable. 6. That by proper and simple means, thoroughly carried out to prevent the scattering of these living germs from men and animals, the danger surrounding persons and animals so affected, and the spread of the disease to others, may in large measure be prevented. 7. That a rational manner of life, as regards the simple, fundamental factors of health and development—namely, food, rest, avoidance of nervous overstrain, and abundance of pure air, especially during childhood



and youth—will do much to fortify the body against tubercular infection. 8. That the society does, upon the basis of these facts, invite and urge the public to join with the physicians and sanitary boards of the state in instituting and carrying out the rational measures having these happy ends in view.

Concerning smallpox, the committee says: 1. That the ordinary sanitary measures thoroughly applied, though of the highest value and by no means to be neglected, have nevertheless not proved sufficient to control the spread of smallpox. 2. That in vaccination and revaccination, accurately and thoroughly applied, there is an almost absolute preventive of smallpox. 3. That though with the lapse of years after successful vaccination the protective influence may decline and smallpox may be contracted, the disease is robbed of most of its dangers. 4. That properly applied, in the hands and throughout under the direction of competent physicians, vaccination is attended with but insignificant risks, the disease-preventing and death-preventing effects vastly outweighing such risks. 5. That upon the basis of these convictions the State Medical Society does invite and urge the public to a full confidence in the preventive value of vaccination against smallpox, and does urge the public to relax in no direction its vigilance in the carrying out of this disease-preventing and life-saving measure.—*New York Medical Journal*.

## Therapeutic And Other Hints.

### GASTRIC HYPERACIDITY WITH CONSTIPATION.—

R. Magnesiae  
Pulveris rhei aa. ....3ii  
Sodii bicarbonatis  
Pulveris sacchari aa. ....3iv  
Olei menthæ piperitæ q. s.

M. Sig.- Half to one teaspoonful in water two hours after each meal.—*Journal of the American Medical Association*.

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Lasting anæsthesia can be produced by spraying chloride of ethyl over a surface previously moistened with a concentrated watery solution of cocaine. Cocainized chloride of ethyl has

been employed for opening abscesses, etc.—BARDET.—*Medical Record*.

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A SAPONACEOUS DENTIFRICE FOR THE PREVENTION OF MERCURIAL STOMATITIS.—Lanz, cited in the *Presse Medicale* for July 22, recommends the following:

R.	Potassium chlorate.....	300 grains
	Medicinal soap.....	150 grains
	Calcium carbonate (chalk?).....	300 grains
	Oil of peppermint.....	15 drops
	Oil of cloves.....	4 drops
	Glycerin.....	a sufficiency

M.—Make into a paste. Besides the use of this dentifrice, the mouth should be rinsed frequently with some antiseptic solution.—*New York Medical Journal*.

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TRINITRINE FOR ABDOMINAL PULSATIONS.—The *Gazette Hebdomadaire de Medecine et de Chirurgie* for August 6, citing the *Semaine Medicale*, says that in the forcible abdominal pulsations coming from the aorta and causing a very distressing sensation, common in nervous subjects and hysteric and neurasthenic women, Sir Willoughby Wade finds the best remedy to be trinitrine administered at bedtime in a dose of three decimilligrammes (about one two-hundredth of a grain).—*Ibid*.

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As a spray in hay fever to be used after thorough cleaning with Dobells' Solution and rinsing with clear water, use:

R.	Mercury bichloride.....	1 gr.
	Quinine hydrochloride.....	60 grs.
	Glycerole of carbolic acid (B. P.).....	480 grs.

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METHYL SALICYLATE IN PRURITUS.—In a number of cases the effect has been immediate and absolutely remarkable. It has been found effective in pruritus, prurigo and lichen simplex. The following is the formula:

R.	Methyl salicylate.....	gr. xxx
	Zinc oxid .....	
	Vaselin aa .....	5v

M.—Apply in a thick salve, so that it will adhere closely to the skin.—*Journal of the American Medical Association*.

**SUPRARENAL GLAND IN CHLOROFORM ACCIDENTS.**—In the *Revue de Therap. Medico-Chir.*, we are told that Minkowsky has repeated the experiments of Biede and of Gottlieb, and has found that the use of suprarenal gland in the lower animals does much toward preventing accidents during the administration of chloroform, probably through its powerful influence on the vascular system.—*Therap. Gazette.—Journal of the American Medical Association.*

## Abstracts and Extracts.

**LE BACILLE DU SMEGMA.**—Pappenheim et Fränkel ont remarqué dans la gangrene pulmonarie de nombreux bacilles du smegma; pour éviter le diagnostic errone de tuberculose ils conseillent les precautions suivantes. Pappenheim fait agir sur les frotis la solution que voici:—

R. Alcool absolu..... 100 p.

Acide roslique..... 1 p.

Bleu de methylene, a saturation.

Fränkel avertit de prendre des precautions surtout avec les crachats putrides riches en graisse et en myeline.

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**THE PROGNOSIS OF NEPHRITIS.**—In view of the indefiniteness and disagreement of the statements in the text-books with reference to the prognosis of nephritis, Cabot and White (*Boston Medical and Surgical Journal*, August 10, 1899) undertook a study of the records of the Massachusetts General hospital for twenty years, with especial reference to the course and symptoms of the fatal cases of nephritis. Besides such information was analyzed as could be secured concerning all patients that had been in the hospital during the same period of time suffering from nephritis of any type. Finally, additional information upon the subject was obtained from a large number of physicians. In these ways four hundred and twenty-three cases were studied. Two important types of nephritis were recognized, (a) chronic diffuse and (b) interstitial. The former is characterized by prolonged anasarca and effusions into the serous cavities, early and pronounced manifestations of uræmia such as headache, vomiting, dyspnœa, vas-

cular changes such as cardiac hypertrophy and high-tension pulse, and a pale urine usually diminished in amount, containing a large amount of albumin, with an abundance of fatty elements in the urine. The second type is a disease of insidious onset and long course, with a comparatively early appearance of the vascular changes and little or no œdema until the heart fails, with late and usually less marked uræmic symptoms and a large amount of urine of a low specific gravity, with albumin present in very small quantities, if at all, and a sediment containing usually a few hyaline and granular casts. Recovery was considered to have taken place when the patient was free from subjective symptoms characteristic of nephritis and passed normal urine. In a few of the cases the long duration of the symptoms and the character of the urine indicated an undoubted chronic nephritis followed by a genuine recovery. Nine cases in which there was a distinct history of lead poisoning and sixteen in which there was a history of syphilis pursued a comparatively long course. Some of the shortest cases, judged by the duration of definite symptoms, were associated with arterio-sclerosis, death resulting unexpectedly from uræmia. Fifty-seven cases in which the only possible etiological factor elicitable was heredity—that is, a family history of nephritis, dropsy, apoplexy, heart disease, or pulmonary tuberculosis—seemed to pursue a relatively long course. No relation was observed between the duration of the cases and such etiological factors as the abuse of alcohol, infectious diseases, pregnancy and exposure to cold. In the vast majority of cases no cause of any kind could be traced. Complications were the cause of death apparently in forty-four of three hundred and thirty-two cases. Pneumonia and pericarditis were the most common, and pulmonary tuberculosis next. Pneumonia was equally common as a cause of death in cases of short and of long duration, while pericarditis seemed more prone to carry off patients at a comparatively early stage of the disease. As cases of nephritis get on beyond the first year of the disease the dangers of such complications as cerebral hemorrhage, hemiplegia, and gangrene increase. The course of the disease in the cases of diffuse nephritis without dropsy was less than half as long as in cases with dropsy. Dropsy was not sufficiently common in cases of interstitial nephritis to be of much prognostic value. Cases of chronic nephritis rarely lasted more than two years after the occurrence of hemorrhage into the retina. The



development of hypertrophy of the heart marked the advance of the disease beyond the curable stage. As a result of the foregoing study the following conclusions are summarized: (1) Chronic nephritis is not an absolutely incurable disease. Recovery occurs in rare instances. (2) Chronic nephritis may exist for a long series of years without causing any apparent constitutional disturbance. (3) The average duration in three hundred and thirty-two cases of chronic nephritis was nineteen months. (4) Acute nephritis is less common than has been supposed; many cases formerly prognosticated as such have been shown to represent exacerbations in the course of chronic nephritis.—*N. Y. Medical Record*.

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DEAFNESS DUE TO MUMPS.—Like influenza, mumps is a disease more to be dreaded for its complications and sequelae than for the direct damage done by it. Fortunately, mumps occurs but once as a rule, and its complications are rare. Among them is deafness. This was long ago recognized by Toynbee, but Gallavardin has recently performed a service by going over the subject anew (*Gazette des hopitaux*, December 17, 1898; *Parole*, June, 1899). It seems that the deafness of mumps is generally total and permanent, though it may effect only one ear. It appears early in the disease, either suddenly or as a sequel of labyrinthine symptoms like those of Meniere's disease. The pathogeny remains obscure, but most authors think there is a sanguineous effusion into the lybyrinth. Treatment is of no avail as regards the power of hearing, but the vertigo may be mitigated by means of quinine.—*N. Y. Med. Journal*.

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## Medical News and Miscellany.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The twenty-fifth annual meeting will be held in Chicago on Tuesday, Wednesday, Thursday and Friday, October 3, 4, 5 and 6, under the presidency of Dr. Duncan Eve of Nashville. The address in medicine will be given by Dr. J. A. Witherspoon of Nashville, and the address in surgery by Dr. Lewis S. McMurtry of Louisville. The program gives the titles of sixty odd papers.

**CORRECTION.**—In last month's issue of *THE JOURNAL* there appeared an article on "The Mind in the Presence of Disease," the authorship of which was by mistake attributed to Dr. L. M. Guess, whereas Dr. T. P. Lockwood of Crystal Springs was the writer of the very interesting paper which he read before the State Medical Association at its April meeting.

**THE NEW ORLEANS POLYCLINIC THIRTEENTH ANNUAL SESSION OPENS NOVEMBER 20, 1899, CLOSES MAY 10, 1900.** Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, La. mar1900

On account of quarantine the opening of Tulane has been postponed until November 2. Regular session beginning November 20. It is getting to be quite a serious thing for our old Alma Mater to be a victim of quarantine each year, but it has its advantage in giving an ambitious student an opportunity to see a few cases of yellow fever without any risk, to speak of, for himself.

By an oversight our notice of the Polyclinic was left out of last month's issue but it appears in this in undisputed vigor. Long may she live!

The Vermont State Board of Health held a school for health officers at Burlington on the 10th-14th of July which was attended by some eighty officials and proved a most decided success. On the subject of tuberculosis the meeting passed a series of resolutions which, among other things, said the state board should inaugurate a series of lectures among the body of the people to spread the correct ideas of the modes of dissemination. This was quite a forward step in such ideas, but falls short of our broader proposition—the teaching of the natural history of all the epidemic diseases to the advanced grades of the public schools.

**A WANT FELT AND FILLED.**—If the doctor had never accomplished anything more definite in his life work than the relief of pain, than amelioration of human suffering, he would not have lived in vain. It is all very well to say that pain is physiological, that it is the cry of the nerve for more blood, yet its

continuance cannot be borne by the patient, even by the most heroic Spartan. Long continued pain is dangerous, and while of course we never wish to abtund and remove it so completely as not to be able to ascertain its cause, and remove the same, yet, the best interest of our patient requires from time to time the administration of that which is opposed to pain. Remedies like opium which relieve the pain and at the same time are exhilarating and alluring in their effects are most oft-times dangerous in the remote demoralization which they produce upon our patient.

**SANMETTO IN PROSTATIS, CYSTITIS, CHRONIC GONORRHEA AND VESICAL IRRITATION.**—I take pleasure in saying that Sanmetto in my hands has proven its superiority to other remedies in prostatitis, cystitis, chronic gonorrhea and general vesical irritation. I prescribe it with confidence every time, and in cases not attributable to mechanical causes I feel sure of relief every time. In gleet its action is marvelous, the worst cases yielding readily, and I shall continue its use.—Oran E. Druley, M. D., Anderson, Ind.

**THE TRI-STATE MEDICAL ASSOCIATION.**—The sixteenth annual meeting of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee will take place in Memphis, November 14, 15 and 16, 1899. The rapidly growing popularity of this aggressive organization of representative physicians from the territory contiguous and tributary to Memphis is such that in point of attendance and enthusiasm it has no superior in the south. At its last meeting nearly 300 physicians were present during the sessions of the association, and the list of papers read was very complete, the papers being of a quality far above the ordinary. Physicians from all portions of the states comprising this association are urged to take a brief vacation from their arduous duties and come to this meeting. All railroads entering the city of Memphis will make the customary one and one-third fare rate on the certificate plan. Titles of papers should be sent to the secretary, Dr. Richmond McKinney, Porter Building, Memphis, Tenn.

**THE RELIEF OF CHEST PAINS IN TUBERCULOSIS.**—Dr. A. W. Beketoff, *American Journal of the Medical Sciences*, August,

1899, has made use of Heroin in the treatment of twenty-five patients suffering from tuberculosis, in dose of one-tenth of a grain in powder or pill. In about fifteen minutes after its administration cough ceases and sleep is possible. The respiration, especially when increased by coughing or pleuritic pain, is slower and deepened. In case of disease of the heart, or oxygen-hunger from encroachment upon the respiratory area (large cavities) this remedy is of little or no value. It has but little influence upon the circulation as regards either frequency or fulness, further than that respiration is benefited. It relieves chest pain and so favors sleep. Insomnia due to mental excitement is not markedly relieved. It is well borne, even if digestive disturbances exist. It is indicated in the treatment of hæmoptysis because of its beneficial action on cough. Patients do not become readily accustomed to its action, and it may be administered for a month without necessity arising for increase of dose.

THE DESCENDANTS OF AN ALCOHOLIC.—In our issue for August 12th, under the heading, The Effects of Alcoholism on Offspring, we mentioned the case of a French family showing such effects. Another example, on a gigantic scale, is afforded in a terrible catalogue of degeneracy which, according to *Lyon medical* for July 23rd, citing *Médecine moderne*, has been uncovered by Prof. Pellmann, of the University of Bonn, who has identified seven hundred and nine descendants of Ada Jurke, a confirmed alcoholic, who was born in 1740 and died in 1800. Seven of these descendants were convicted of murder, and seventy-six of various other crimes. One hundred and forty-four were professional beggars. Sixty-one lived on public charity, and one hundred and eighty-one were prostitutes. In surveillance, prosecutions, and maintenance in asylums or prisons, this family is said to have cost the German government the sum of six million francs.—*N. Y. Medical Journal*.

AN ARMY SANATORIUM.—Orders have recently been issued authorizing Surgeon-General Sternberg to establish a sanatorium for the treatment of officers and enlisted men of the army suffering from pulmonary tuberculosis, at Fort Bayard, New Mexico. Hereafter transfers of enlisted men suffering from this disease may be made to this hospital upon the recommendation



of medical officers of the army. The surgeon-general is also authorized to provide for the care and treatment of discharged soldiers entitled to the benefits of the United States Soldiers' Home, Washington, D. C., who may be sent to the sanatorium by the board of commissioners of the home.—*N. Y. Medical Record*.

**TINCTURE OF IODINE IN DIARRHOEA OF CHILDREN.**—Dr. Gosch (*Riforma Medica*) recommends the tincture of iodine in acute infectious gastro-enteritis in children, in doses of from two to four drops in sugar-water every eight hours, for three days in succession. He claims it works promptly; the fever and diarrhoea cease, and the sensorium again becomes free. In adults in doses of six drops, three or four times a day, the result is not so rapid, but just as certain. He employs the following mixture:

**UN LION OPERE DE LA CATARACTE.**—Le Pr. Gustave Pisenti, assistes des Drs. Succoni, Baldeschi et Mudrazzi, vient d'operer un jeune lion de la cataracte. Le terrible animal, apres avoir ete solidament ligotte, a ete chloroforme. L'operation a reussi brillamment, et apres qu'on eut fait un point de suture a la partie operee, le lion a ete enferme dans une cage de la menagerie protegee contre la lumiere.—C'est la seconde operation de ce genre fait en Italie sur un lion. Une troisieme a du etre faite ces temps derniers.—*Gazette Medicale de Paris*.

## **THE PHYSICIAN IS THE WOMAN'S FRIEND.....**

Who combines DIOVIBURNIA (Uterine Tonic) and NEUROSINE (Nerve Sedative) in the treatment of painful Menstruation, Threatened Abortion or Miscarriage, Uterine Congestion, Female Neurosis, and ALL FORMS OF NEURASTHENIA OF UTERUS.

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R. Dioviburnia (Dios),  
Neurosine (Dios).....aa ʒ iv.

M. Sig.—Teaspoonful in hot water every two or three hours, until relieved, three times a day thereafter.

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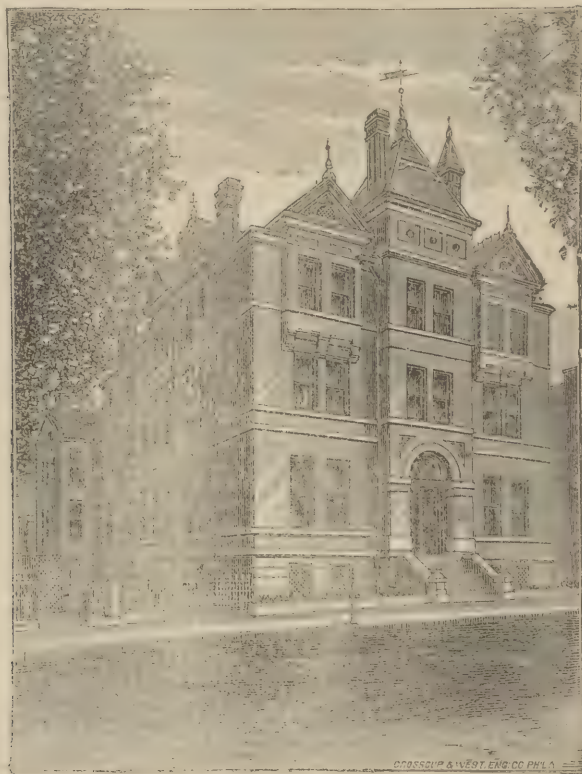
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For further information DR. MAURY can be addressed at the Sanatorium.

# The Journal

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### Original Articles.

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#### A Case of Eclampsia.\*

BY B. L. CULLY, M. D., JACKSON, MISS.

I was called on the morning of April 21, 1898, to see Mrs. F. of our city, and found her in semi-coma, having had during the night five convulsions. On attempting to arouse her she had another severe one lasting about five minutes. I immediately gave her half grain of morphine hypodermically. There was œdema of lungs and general anasarca, her lower limbs measuring three or four times their normal size. Realizing the gravity of the case I returned to her in one hour and a half to find that she had had another slight convulsion. I introduced a soft catheter to induce abortion and gave a hypodermic of seven (7) drops veratrum, with instructions to give ten drops every two hours by mouth, also large doses of epsom salts.

I did not see her again until 8 p.m. as I was called out of the city. During this interval she had taken nothing, owing to the swollen and sore condition of her tongue, and had no more convulsions. I repeated the hypodermic of veratrum, saw her next morning at 8 o'clock, she had rested well during the night, no convulsions, complained some of headache and vision was quite bad, yellow and green spots before her eyes, temperature

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\*Read before the Mississippi State Medical Association, April, 1899.

normal and pulse 84. I repeated the veratrum. The catheter had no effect after remaining twelve or fifteen hours, so it was removed. Child was viable. I instructed nurse to give veratrum if pulse became frequent and tense, and to give large salt water enemas. At this second visit I drew off two ounces of dark urine. The excretion of last eighteen hours. Test for albumen showed 75 per cent. per volume.

During the next nine hours she passed about two ounces of urine and bowels acted twice. The second day 50 per cent. and the third day 40 per cent. albumen, with urine clearer and a little increased flow. Patient rested well during the night. She was given 10 drops of veratrum at 3 a.m.: April 23, 8 a.m., pulse 54, temperature normal; 24th, a.m., bowels acted three times during previous night, from three doses ( $\frac{1}{8}$  grains each) of elaterium, voided urine three times, which shows at least 50 per cent. albumen; temperature normal, pulse 73. She rested tolerably well during the night but had some nausea. 25th, had a restless night and suffered considerably with gaseous distension of the bowels, pain in stomach and back, kidneys and bowels acted three times but not freely. Test shows 75 per cent. albumen. Prescribed half grain muriate codeine, one grain of calomel and four grains S. N. bismuth, to be repeated every three hours, and gave also sour wood cordial compound, teaspoonful every three hours, and ordered steam baths continued through the night.

26th, 8 a.m., I found patient sitting up in bed washing her face and looking much brighter, stomach still sore to the touch but distension gone; says her limbs are not as sore and painful as heretofore. Pulse and temperature normal. Bowels and kidneys acted during the night, 50 per cent. albumen, urine increased. Prescribed tablespoonful doses of infusion of digitalis every four hours.

27th, 8 a.m., kidneys acted some freer, still 75 per cent. of albumen, some tenderness in epigastric region, bowels acted three times during the night; 8 p.m., condition same as in the morning. As she was not sleeping well I prescribed chloral and codeine.

28th, 8 a.m., she feels some better after a tolerably fair night's rest, pulse 100, bowels and kidneys acted several times during the night, urine shows 75 per cent. of albumen.

29th, 8 a.m., after a fairly good night's rest she feels better.



Bowels and kidneys acted scantily; 75 per cent. albumen, same treatment continued.

30th, patient has suffered all night and day, and as I could see no effect from infusion of digitalis it was discontinued for a while, and ordered steam bath repeated twice in twenty-four hours.

May 1st, patient is relieved of nausea and feeling much better. I put her on Murdock's Liquid Food every four hours and infusion of digitalis to be given night and morning.

3d, each day she is feeling better, with increasing appetite. Prescribed Pepto-Mangan with Murdock's Liquid Food.

4th and 5th, patient evidently better, as shown by increasing activity of kidneys and bowels and general condition, though albumen is still present in large quantity.

6th, I was called at 4 a.m. to find patient had been suffering about three hours with labor pains. An examination revealed dilating os and protruding sac. Her husband had previously given two doses of chloral and codeine to allay pain and as a precaution against convulsions, as he had been so instructed, in anticipation of labor. I delivered her in about an hour of a five or six months viable child, which, of course, lived only a short while. She was given a small quantity of chloroform during the delivery. She had no convulsions and with the exception of some nausea and after pains she did nicely.

Several hours after delivery urine shows large quantity of albumen, and except slight nausea she rested nicely.

7th, patient had a restless night. Bowels and kidneys acting well, with slightly less albumen.

8th, patient had a restless night. At 3 p.m. pulse 100, temperature 100. Bowels very sensitive to pressure, with some distension. Lochia free and odorless, still large quantity of albumen.

9th, patient rested better last night. At 9 a.m. pulse 90, temperature 99.45. She feels better, bowels not so sensitive and acted once during the night, albumen same.

10th, condition same.

11th, patient doing well, albumen 45 per cent.

12th, report same, except albumen reduced to 25 per cent.

13th, albumen 10 per cent.

14th to 19th inclusive, patient continues to improve with diminishing quantity of albumen to the point where it is not dis-

coverable. Her vision is still defective and has some headache this morning. She got up during the night to wait on a sick child, which I presume is cause for the headache.

23d, patient continues to improve, and being up almost continuously is discharged.

My reasons for reporting this case are several:

First—The long continued symptoms of urinennea. For several months she had been suffering with headache, suffocative sensations and disturbed vision, had a waxy pallor of face, edema of eyes and general dropsical condition, culminating while in New Orleans, La., about a week before I saw her, in what I judged to have been a convulsion, and the physician there advising her to come home and place herself in the care of a physician.

Second—The evident yielding of the convulsions to the veratrum, and the relief given the embarrassed kidneys by free evacuation of the bowels and salt water enemas, to which I believe my patient owes her life to-day.

Third—The complete restoration of the kidneys in a case in which there had existed, for two or three years, symptoms pointing to chronic nephritis. My patient, now one year after her illness, is about five months pregnant, and after frequent recent tests for albumen shows none.

Now, in conclusion, what should we learn from this experience. Why this: That we have in veratrum free purgation, steam baths and warm salt water enemas, agents of equal, if not greater value, than any other therapeutic remedies in relieving the embarrassed kidneys. Again, we should not too soon become discouraged in apparently hopeless cases, but institute any and all rational treatment to relieve by elimination the toxic elements that are so profoundly disturbing the nerve centers.

### **Electrolysis in the Treatment of Diseases of the Lachrymal Apparatus.\***

By T. A. BARBER, M. D., MERIDIAN, MISS

This paper will only deal in obstructions of the punctum lachrymal sack and nasal duct, with abscess of sack. Until the last few months I have avoided cases affecting this very delicate drainage system, from the fact that I have failed to add to

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the comfort or material benefit of my afflicted patient; nor have I seen but little permanent results in hospital practice. In some instances a simple slitting of the canaliculus has relieved the overflow when the canal had become narrowed from cicatricial contractions, or contraction due to chronic conjunctivitis; but for any permanent relief from a stricture of the nasal duct I have failed until recently to see any permanent benefit.

The pain produced by forcing a probe through the nasal duct is so intense that often have I seen the patient rendered unconscious in a faint; and then again, the old practice of forcing an opening and then inserting a lead stylet to be worn until the patient was disgusted and given up in despair is to be condemned. I have never used the latter and don't think I shall. My manner of dealing with those cases will be explained in the following cases:

Mrs. S., aet. about 46, was sent me by Dr. M. J. Thompson in October, 1898. Patient stated that some twelve years ago the tear duct became closed with the always present symptom "weeping eye," followed some time later with abscess of sack which continued to discharge pus and mucous. Was treated by several good men and about eight years ago was treated in Sacramento, Cal., and wore a leaden sound or stylet in the nasal duct for several months with no benefit. I found the duct had been slit up well, but the nasal duct entirely closed. After using cocaine could not pass the smallest probe, so I introduced a probe-pointed knife and injected a solution of *acidi boracici*, but it failed to pass into the nose, and on inspecting the nasal canal found a growth of fibrous nature occupying the space of opening, so I introduced through the opening just effected a small silver probe until it reached the floor of the nose, then taking a small knife entered at base of growth on external nasal side of canal and cut toward septum nasae and encountered the probe, then raising probe cut all the growth away, after which had no difficulty in syringing out the nasal duct, which I did thoroughly, then connected a dry cell battery of six cells and allowed to pass until the probe would pass easily, then a larger one, then directed patient to call next day and each successive ones and washed out canal for about ten days, when the canal became closed up again and could not introduce the smallest size probe, so I connected the probe with my dry cell battery and started with the smallest size probe, and by patiently urging the probe

found the contracted canal gradually yielding and allowing the probe to descend until it entered the nose, after which a larger one could be passed, then it could be syringed out without trouble, and the tears flowed for some weeks, when again I would have to connect with my battery until finally a perfect and it seems a permanent cure has been effected, it having been about two months since the electricity was used, and the grateful patient says he is well, not only of the stricture but abscess also. I had neglected to state that the suppurating sack was treated in the same way as the duct, with probe, as I turned the bulbous point of probe while connected with battery, to all parts of the sack, thus destroying all pyogenic infection and restoring the sack into a healthy condition.

Case II—Mrs. N., aet. about 60, was sent by Dr. M. J. Lowery of this city, who wished relief from “the tears running over the face.” Found patient with a chronic dacryo-cystitis, or mucocele, with stricture of upper narrow part of nasal duct. On account of the very nervous condition of this patient it was with difficulty that I succeeded in slitting up the canaliculi, but finally did so by using considerable cocaine and other persuasives, after which injected a 4 per cent. solution of cocaine into sack after pressing contents all out and endeavored to pass a small probe through nasal duct, but failed to do so on account of the stricture before mentioned. So I had to resort to the cutting probe and then followed with smooth probe and when well in nose connected with battery—six cells—for about five minutes, pulling probe up and down all the time and washing out with the boracic acid solution. The passing of probe was made about twice a week and canal thoroughly washed out each time, and whenever I had any trouble in passing probe would resort to battery, which never failed to relax and facilitate the easy passage of the sound. After three months’ treatment patient was discharged, cured.

Case III—Mrs. F., aet. about 45, wife of a prominent minister, sent for me for an acute abscess of sack with violent inflammation of the surrounding tissues. Eye was so swollen that it was with difficulty that I was able to slit up the canaliculi; after accomplishing this the usual remedies were used to relieve the inflammation, and patient requested to call at office as soon as swelling disappeared, which was in about two weeks. Found some purulent discharge and epiphoria, but was able to syringe



out the sack with the aid of cocaine, but could not pass the probe below the upper narrow portion of the canal, so connecting with my battery and gently pressing on probe, directed properly, I soon felt the stricture giving away and allowing the probe to pass until the nasal passage was reached. The sack was then treated by turning probe in all directions so as to reach every part. The parts were washed out with the boracic solution every other day and probe had to be passed about once a week for some three months, when patient seemed to be well.

Other cases have been treated with almost same results.

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### **Secondary Nerve Suturing.\***

BY CHARLES E. CATCHINGS, M. D., WOODVILLE, MISS.

Case I—Was an English sailor about 35 years of age. He received a stab wound in the wrist while in a fight with some natives in South America. The wound was dressed by the surgeon of the ship on which he was sailing, and was as he expressed it—well in a few days—still he says he did not have any strength in his little finger and there was loss of sensation in that member and a part of the ring finger. After about two years cruising he landed in England and immediately sought the advice of a surgeon. This surgeon examined the hand, advised and performed an operation for the restoration of sensation to these two fingers with the following result: In about three days there was gangrene of the little finger and that member had to be amputated, and still there was no return of sensation to the stump or the ring finger; this operation was performed in London in 1898. After this man had recovered from the operation he left the hospital in London, took a steamer and sailed for the United States. He came immediately on to Chicago and on February 10 he entered the Presbyterian Hospital and was assigned to Prof. Senn for examination. After a very careful examination the professor advised secondary nerve suturing; the operation was performed on February 12, two days after he entered the hospital. A straight incision was made directly over the ulna nerve where it had been severed, the proximal end was soon discovered, on the end of which was a large neuroma; the nerve was then picked up with a pair of dissecting

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forceps and its course was followed down toward the hand through the scar tissue until the distal end could be seen, then in a bad state of atrophy; the neuroma on the proximal end was then removed and the two nerve ends brought together but not until the hand was flexed on the forearm and the forearm on the arm for the two nerve ends were about one and one-half inches apart after the removal of the neuroma.

This being the case the two nerve ends were dovetailed and brought together, then a suture composed of medium size catgut was passed through the center of both nerve ends and the suture tied, this brought the dovetailed ends of the nerves together beautifully. After the central suture had been tied two paraneural or lateral sutures were put in to support the central one.

After the blood had been wiped away by an alcohol sponge the wound was sutured with catgut and then the edges with horsehair, then a small piece of sterilized gauze was placed over the wound and coiled down with collodion and this was repeated three times, every time the piece of gauze was a little larger than the piece beneath. The arm was finally dressed and put up in plaster of paris with the hand and forearm flexed, this dressing was left on for about three days as there was no rise of temperature or pain. At the end of twenty-four hours the test for returned sensation was made and greatly to the surprise of all there had been a complete restoration of sensation, he could detect one or two points as fast as you could touch them to him. After three days the plaster bandage was sawed in half and only the posterior half used; the flexion was gradually lessened every day and at the end of three weeks the man was discharged cured.

Case II.—An American, aged 35 years, native of Colorado. In 1897 while in a fight he received a stab wound in the upper third of the left arm, severing both the median and ulna nerves, also wounding the brachial artery. A surgeon was called in and the wound dressed; in about two weeks the wound was well so the patient said, but there was a small pulsating tumor at the site of the wound and a total loss of sensation in the arm and hand and very little use of the arm; he consulted several local surgeons but was never benefited thereby. On February 15, 1899, he came to Chicago, entered Presbyterian Hospital and was assigned to Prof. Senn; the arm was examined and an operation advised, the man's arm then was in a very bad state of

affairs, there was a very perceptible lack of innervation, and the professor very wisely sought to restore sensation before removing the aneurism, which he did in this wise: The man was anaesthetized and the arm made aseptic, he then made an incision over the site of injury and found both nerves severed and the ends one inch apart, he removed the scar tissue, vivified the ends and sutured as in the above case, one direct and two lateral sutures, the aneurism was not touched, the man's arm was dressed and he put to bed, sensation returned but not as in case one, for it was about two weeks before there was complete restoration. As soon as this man was well from this operation Prof. Senn intended to ligate the artery for the aneurism, which he did several days after I left the hospital.

Case III—An American boy, drayman. While driving his dray one day he had a collision with a street car, was thrown to the ground and received a compound fracture of the fibula, an ambulance was called and the boy taken to an hospital where the fractured bone was set and the wound dressed. In a short while the boy was up and left the hospital. About this time he noticed there was a loss of sensation in some parts of his foot, also that there was a loss of motion to certain extent. When the boy walked he always used this leg as if it felt heavy and was too long; he always placed it forward and stepped or walked on his toes. A year after he received this injury he came to the hospital to have the defects that he was then suffering with corrected. Prof. Senn operated, found that the two ends of the broken fibula had never united but formed a false joint, this was remedied by removing this false joint and nailing the two sound surfaces of the bone together with a bone nail, then the peroneal nerve was looked for and found to be torn in half, this was dissected out and the two ends vivified and sutured together as in cases one and two. In three weeks the boy was able to be up in the ward and in a month was discharged with good sensation in foot and leg and good use of leg.

Case IV—An American boy who had received a stab wound in wrist severing median nerve; the operation was the same as case 1. With complete union of the nerve ends and return of sensation boy was discharged in twenty-five days cured.

Case V—Was the implantation of a part of one nerve into another; the musculo cutaneous, a branch of the external popliteal, had been severed and a part of the distal end torn away.

On the proximal end was a large neuroma; to remove this neuroma and then bring the two nerve ends together would have been impossible, so instead a part of the proximal end was split off and implanted into the anterior tibial with as good result as if the nerve ends had been sutured. When I left the hospital this man was still there, as the operation had only been done about fifteen days, though he claimed that sensation had been restored to those parts where there had been loss of sensation.

These cases were all operated on by Prof. Nicholas Senn and I took the notes myself while going with him through the wards and helping to dress the cases.

Of the six weeks I spent there I saw these five cases of secondary nerve suturing; three had been discharged cured, two still remained in the hospital but in a much improved condition and were surely discharged cured shortly after I left the hospital.

### **Report of a Case of Extensive Fracture of the Skull.\***

BY E. J. JOHNSON, M. D., EDEN, MISS.

William C., aged 30 years, native of Mississippi. On December 8, 1898, the patient was injured by an explosion of a boiler. He was struck on the head by a piece of timber and sustained a fracture of the skull. I saw him one hour after the accident occurred. He was at that time in a comatosed condition. Examination showed an extensive compound fracture of the skull in the left frontal region. The scalp wound measured three and one-half inches. In extent the bone injury was greater than the superficial wound. The membranes of the brain were torn and there was considerable laceration of the cerebral surface. The patient presented the typical aspect of compression of the brain. He was unconscious, breathing stertorously, pulse 40 per minute and full. The injury upon examination was found to be an irregular fracture, commencing over outer third of left orbit, curving upward and backward over the frontal bone.

Being situated as I was, remote from surgical conveniences and without an assistant at hand, I hesitated at first, as well I might, to undertake the capital operation which was indicated, but just then the memorable words of the Hon. William L. Tweed "What are you going to do about it" came to mind. I

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soon saw that something must be done, and with the assistance of myself I began. The wound was thoroughly cleansed and the scalp shaved with sterilized instruments and clean hands; a semi-lunar incision about four inches long with its convexity directed downward was made; on removing the calvarium the whole orbital arch with cavity was found to be crushed in, the dura and brain substance under the orbital prominence was severely lacerated. I moved the fragments of bone and carefully scraped out about a teaspoonful of brain substance; I then drew the membranes of the brain together and sutured them with my small catgut suture and finally the scalp was sutured, providing for drainage by inserting a few strands of silkworm gut at the lower outer angle of my incision. It is my pleasure to be able to state that there are at present no motor sensory or mental symptoms left as a relic of the severe injury above reported.

### **Puerperal Septicæmia; Its Prevention and Treatment.\***

BY H. N. STREET, M. D., GLOSTER, MISS.

Puerperal fever has ever been one of the greatest "bug-bears" to obstetricians. Under the light of modern research we can readily understand why it was so much dreaded before the time of asepsis, for we now more fully realize the cause of their utter helplessness. Before this time they knew nothing of the germ theory, antiseptics or asepsis. How utterly helpless they were! We will now briefly consider the etiology, prevention and treatment of this much dreaded disease.

When we come to look well into the causes we will soon become convinced that it is not always due to carelessness on the part of the physician or midwife. Until recently it was thought that the disease depended upon the introduction of the streptococci only, but later investigations prove that fatal infection may follow the invasion of staphylococci bacterium coli, gonococci, pneumococci, diphtheria bacilli and the bacterium of putrefaction.

If we will carefully study the nature of these various germs and their usual methods of conveyance to the patient we can readily see that other persons beside the physician quite often convey the poison. As the patient can so easily become infected

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by the physician we should be exceedingly careful. It should be a universal rule of all physicians to wash their hands for fifteen minutes before touching their patient. Five minutes should be given to scrubbing with nail brush and antiseptic soap in hot water, five minutes more to immersion in hot water containing carbolic acid or one to two thousand bichloride solution, the remaining five minutes may be consumed in rinsing the hands in hot condy's fluid. The nails should be well cleansed. Preparation of patient consists in all bedding, etc., being perfectly clean and thorough scrubbing of the external genitals with soap and sterilized water, to be followed by use of biniodide soap and water as hot as can be borne. In some institutions the parts are well shaved and vaginal antiseptic douches given. I object to the routine use of vaginal douches. It washes away the vaginal secretions which contain the vaginal bacilli. This bacilli beyond question plays an important part in preventing infection from the streptococcus and staphylococcus that are found in nearly all vaginas. Where the vitality of the tissues are not lowered from any cause and the vaginal secretions are allowed to follow the even tenor of their way these germs are readily neutralized. Of course where there is a gonorrhoeal infection antiseptic douches are demanded, both in the interest of the mother and child. Another objection that has been urged against the routine douche is that it removes the abundant flow of mucous which acts as a lubricant that not only facilitates the descent of the presenting part but tends to lessen the production of fissures or other traumas. Another common practice that should be discouraged is too frequent examinations. Three examinations during an ordinary labor is sufficient. Should anything unusual occur others may be made.

Treatment—The treatment may be classed as symptomatic and curative. It is also modified by the real cause of the infection, that is, gonorrhoeal or otherwise, and the local condition of female parts. Few drugs are needed. I think veratrum combined with digitalis or alone in the first days of illness very good to tie the pulse down within the temperature bound, tonic doses of quinine and strychnine with minimum amount of antipyretics will about cover the internal use of drugs.

If you have a vaginal tear or ulcer or lacerated cervix I find the use of 40-grain solution of silver nitrate or solution of

chloride of zinc best to destroy the infecting membrane that usually covers them to be followed with antiseptic douche boro-glycerine tampon and local application of ice bags over hypogastrium all that is usually necessary. If due to gonorrhoeal infection regular douches of bichloride or silver salts with curement fulfills the indications. If due to retention of membrane its prompt removal by use of dull curette or finger followed by cleansing douche will likely be all that is required. Quite often a thorough douching at the very beginning will cut short the attack. It is understood that all surgical interference is to be done under strictest aseptic precautions. Its prevention may be expressed in the one word "cleanliness," barring gonorrhoeal infection, and its treatment in the removal of the cause and support of the patient.

### **The Difficulty of Differential Diagnosis in Gunshot Wounds of the Abdomen.**

BY E. M. HOLDER, M. D., MEMPHIS, TENN.

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The first question which confronts the medical attendant when called to see a patient suffering from a gunshot wound of the abdomen is this: Is there, or is there not, a lesion of the abdominal viscera.

Penetrating abdominal wounds with visceral lesions are attended with such a frightful mortality that an early diagnosis is imperative, because the mission of surgical interference in this condition is ideal, when we operate in time to prevent such complications as acute anemia from hemorrhage or septic peritonitis from extravasation of the contents of the intestines into the peritoneal cavity. We are called upon to differentiate first between non-penetrating and penetrating wounds, and second between penetrating wounds with and those without visceral lesions.

"The science of diagnosis," declares Lewis, the illustrious secretary of the French Academy of Surgery, "holds the highest rank among the different branches of the healing art. It is at once the most useful and the most difficult."

The progressive surgical thinkers of our time have failed to make plain the diagnostic differentiation in these conditions and I regret that nothing of value has been offered to the medical world in this direction during the past twelve months.

Generally in abdominal injuries the symptomology is a most deceptive guide to the pathological condition existing.

There are but two conditions which are positive evidence of abdominal penetration. First, protrusion of the viscera, and second, escape of visceral contents. In the absence of these rare symptoms we can only ascertain positively the existence or non-existence of penetration by a careful dissection along the tract of the ball. This is best done by passing a grooved director into the wound after using some local anaesthetic and enlarging the opening by carefully dissecting down to the end of the director, then another search should be made, and if the director can be made to pass further the dissection should be continued until it is clearly demonstrated whether the wound ends in the abdominal wall or enters the peritoneal cavity. The danger to the patient is not increased by an aseptic operation of this nature. If the wound is found to be a penetrating one then the chances are that some intra-abdominal mischief has been done and an exploratory operation should be done without delay.

The diagnosis may be facilitated by taking into consideration the external site of the injury and the probable direction which the offending instrument has taken. There is sometimes a wound of exit to aid us in making the diagnosis. A clean cut wound indicates that the bullet entered at right angles to the surface, an irregularity of the edges of the wound, or a "long abraded or bruised tract leading up to the wound," implies oblique entrance and possibly no penetration of the abdominal cavity.

With few exceptions we deprecate the use of the probe. Quoting from Greig Smith in his work on abdominal surgery, "the torturous wound canal can rarely be followed by a probe without risk of the formation of false passages, and the evidence deduced from probing is always liable to misinterpretation."

Dr. Senn in a recent paper expresses himself very emphatically on the dangers and uselessness of probing such wounds. Movements of the skin, muscular planes and fasciae render it



extremely difficult to follow the bullet tract. I enjoin you never to probe a bullet wound of the abdomen, but if you should certainly do not do so until probe, wound and your hands have been asepticised, for in the language of Nussbaum, "the fate of the wounded rest in the hands of the surgeon who applies the first dressing."

If the wound is below the level of the umbilicus it is almost certain that the intestines are perforated, if in the upper zone of the abdomen there is a chance of their escape. Still the amount of injury produced by a missile penetrating the abdomen is essentially problematic. There are no other positive means than those already given by which we may ascertain the penetration or non-penetration of abdominal wounds. The unreliable symptoms are:

**SHOCK.**—But when shock is present these questions present themselves: First, is it shock *per se* incident to trauma, limited to the abdominal wall? second, is it shock with penetration and no visceral lesion? or third, is it shock with visceral lesion? How shall we know when the shock of trauma ends and that of hemorrhage or sepsis begins? Some one has truly said: "The best part of our knowledge is that which teaches us where knowledge leaves off and ignorance begins." A non-penetrating wound of the abdominal wall may be attended by profound shock. On the other hand a penetrating wound which divides the intestines in several places may be accompanied by an inappreciable degree of shock. Shock is of no diagnostic value when taken alone in estimating the nature and extent of an abdominal wound; still, while shock *per se* is no guide, its behavior is of diagnostic value. Uncomplicated shock, or shock from a penetrating wound of the abdomen, without visceral lesion, is generally sudden in its onset and should pass away in a short time, in a few hours. On the other hand delayed shock points significantly to intra-abdominal bleeding, and of course to visceral lesion. The shock of hemorrhage may ensue so rapidly as to be merged into the primary shock of injury. Shock delayed for ten or twelve hours will usually point to hollow visceral lesion with escape of contents and the advent of septic peritonitis. Shock and hemorrhage, strange to say, do not, as a rule, occur simultaneously. Profound shock is one of nature's most potent hemostatics. Hemorrhage, however, induces shock, but shock restrains hemor-

hage. In no field of surgery is the diagnostic value of shock beset with greater difficulties of proper interpretation than in the case of injuries to the abdomen.

**PAIN.**—But little significance can be attached to this symptom, although Dr. Parker of New Orleans, who has had a large experience, affirms that he has never seen a case of penetrating gunshot wound of the abdomen in which severe pain referable to the umbilicus was absent.

**VOMITING.**—It has been said that "one of the most important symptoms" of visceral lesion is a feeling of nausea frequently accompanied by vomiting. This is not common in false shock. To this I can not agree. Vomiting is frequently a prominent symptom in non-penetrating wounds, so it is in no sense an evidence of visceral injury. The same may be said of the pulse, of pain and of the pallor of the skin. Of course, if blood be vomited it is fair to conclude that the stomach or duodenum is involved. Still not infrequently when there is a wound of the stomach no blood is found in the vomited material. In that case it is quite likely that in the pouring out into the peritoneal cavity of the stomach and intestinal contents that the blood is carried out in that direction. Protrusion of the mucosa into the wound also helps to block the entrance of blood into the lumen of the wounded viscus.

Even the presence of blood in the vomited contents is not conclusive of penetration of the stomach, since not infrequently a simple contusion of the stomach wall may result in hemorrhage.

**HEMORRHAGE.**—Blood from a wounded internal organ when poured out into the peritoneal cavity produces constitutional symptoms which are difficult to distinguish from the symptoms of shock which may be due to an innocent trauma of the abdominal wall. Not until a considerable amount of blood has been extravasated can its presence in the cavity be detected by palpation, percussion or succussion. Moreover, there is usually very little hemorrhage accompanying wounds of the intestine, unless its mesentery, the omentum or some one of the solid viscera have likewise suffered injury. If there be hemorrhage, we would expect to find in addition to the foregoing such symptoms as extreme pallor, small rapid pulse, yawning, sighing, thirst and jactitation. Many of these symptoms are present in shock, but if much internal hemorrhage be going on, the blood

collecting in the abdominal cavity will soon give dullness or percussion in the flanks, which line of dullness changes in position as the patient moves from side to side. We cannot wait for detection of blood in the feces, and even if it were detected in this way it might be caused from a contusion of the intestinal tract and not necessarily a perforation.

Blood in the urine may be strongly suggestive, but is not confirmatory of a perforation of the bladder. Perhaps the best way to detect a perforation of the peritoneal wall of the bladder is to draw off the urine and then inject a measured quantity of aseptic fluid into the empty bladder. If in a short time as much of the fluid is withdrawn as was put in the bladder, you may conclude that there is no perforation.

EMPHYSEMA.—Emphysema signifies very little, for it may be produced by air which has entered the wound from without, just as likely as by gas which has escaped from the alimentary tract.

To Dr. Senn we are indebted for the hydrogen test, which by some is considered a valuable aid in the diagnosis of wounds of the stomach and intestines, but I must beg to be classed with those who deprecate the use of Senn's method for the following reasons: First, fecal matter may be forced by the gas into the general cavity. Second, it would not show wounds of solid viscera or mesentery. Third, the distention would cause delay in replacing the intestines and make their reduction more difficult. Finally there is no method of investigation which we can pursue short of exploratory incision (which I consider entirely within the scope of legitimate procedure) to ascertain the extent of abdominal injuries, excepting, of course, wounds with a prolapse of the viscera or where there is an escape of bile, urine or feces through the external wound; this is convincing evidence of perforation but it is of very rare occurrence.

In penetrating wounds of the abdomen there is an almost universal opinion among surgeons that operation at the earliest possible moment is the only justifiable attitude. The surgeon can never be absolutely positive that an internal organ is not injured, or that there does not exist concealed hemorrhage until he has seen the invaded part. If it be a slight wound or if shock is greater than will warrant anaesthesia, we repeat that it is incumbent on the surgeon to make an incision or an extension of the wound under cocaine anaesthesia, and if nothing be dis-

covered he may then be justified, and only then, in awaiting symptoms. If he find perforations or hemorrhage, a temporary arrest of the flow will be conservative until two or three hours have elapsed and given the patient time to recover from shock.

In conclusion, if I were asked what three things are specially conducive to success in this class of operations, my reply would be as follows: First, early operation and the most rigid precautions to insure antisepsis, and if possible, asepsis. Second, minute attention to the details of the operation. Third, constant watchfulness in the matter of after treatment.

Quoting from a recent textbook, the argument in favor of operative interference in penetrating or supposed penetrating wounds of the abdomen may be briefly stated as follows:

1. "The enlargement of a wound sufficiently to demonstrate its opening (or not opening) into the cavity of the peritoneum, is a simple procedure, practically without danger.

2. "Abdominal section is not a difficult nor, when skillfully and properly performed, a dangerous operation.

3. "A penetrating wound of the abdomen, left without surgical interference, is attended always with great danger.

4. "If any vessels of size are divided, hemorrhage is an immediate danger, and peritonitis a serious and profoundly fatal complication.

5. "If the alimentary canal is opened, death is almost inevitable. The few recorded cases of recovery form such an infinitesimal proportion of the whole, that they should carry no weight against interference."

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### **Mode of Infection and Symptoms of Bubonic Plague.**

The report of Khan Bahadur N. H. Choksy, of Bombay, India, based on the examination of 939 cases of the plague in a Bombay hospital, deals with infection under the following headings: 1. Through the skin. 2. From the contents of buboes. 3. Through the sputum. 4. Through inspiration; atmospheric conditions, excreta, through the stomach, rat bites and shoe bites.

- 1.—The fact that buboes were mostly found in the femoral and femoral-inguinal region made it seem probable that infection gained entrance through the skin, but in not more than 5 per cent. of the cases could there be found evidences of a breach of



surface, while it must be admitted that these persons had been in the habit of going barefooted all their lives, and had innumerable cracks and fissures on the soles and elsewhere. Yet traces of inflammatory mischief from the absorption of the virus through the crack or fissure were conspicuous by their absence.

2—The pus from incised buboes was always found, on the first day, to contain a large number of plague bacilli, which, however, gradually diminished within three to five days, after which the discharge from the wound was almost sterile. In this connection a case is reported in which a member of the hospital staff, having operated on some cases, became infected directly through the hands, leading to the formation of buboes in axillary region with diffused infiltration over the forearm, arm and chest.

3—In the patients with plague, who subsequently developed pneumonia—pneumonic type—the sputum was found to contain almost pure cultures of the plague bacilli. “And knowing as we do the habits of the lower classes, who would spit anywhere and everywhere, round about where they were sitting or lying down, it is not difficult to conceive how prolific a source of infection such sputum must be, and that it must have played, and is probably playing a by-no-means insignificant part in diffusing the epidemic.”

4—While the study of the sputum might lead one to conceive that infection might occur by means of the dried sputum, ordinary respiration does not seem to infect, or scarcely a doctor, nurse or hospital attendant would enjoy such immunity as they do.

From the fact that the plague epidemic progresses like a regular wave from one end of the country to the other, as does influenza, atmospheric agency must be a potent factor. While infection by means of the feces or urine may be possible, it was not found what proportion of these excreta contained the germ. Infection through the stomach seemed doubtful, since in no case were the abdominal symptoms marked, or the mesenteric glands so enlarged as to indicate primary infection through the digestive tract. No infection through the water supply was possible, nor could it occur through grain—millet grain—used as food, which necessarily entailed the process of boiling, sufficient in itself to destroy the micro-organism. In no case was the plague

attributed to rat bites, or to fleas, flies, ants, bugs or even to mosquitoes.

The symptomatology is considered under the head, "General Condition of Patients on Admission," being divided into: 1, attitudes; 2, gait; 3, aspect; 4, speech; 5, temperature; 6, buboes; 7, nervous and circulatory system, etc.

Regarding the attitude, the statement is made that owing to the advanced stage at which most cases were admitted, there was probably no characteristic attitude, unless it was that the patient as a rule would generally lie flat on the back, with limbs extended and one leg almost invariably crossed over the other. As a rule the gait was tottering, with the weakness of the limbs, and bending of the knees, indicating thorough prostration. The aspect was almost invariably characteristic. Ordinarily the plague seems to be stamped on the patient's features, giving it a characteristic and not to be easily forgotten appearance. The features depicted fear and anxiety, or sadness and resignation, as if from an intuition of an impending fate. In certain cases of the nervous type there was delirium, with a maniacal appearance, bloodshot eyes protruding through their sockets, giving rise to a wierd aspect. The speech was as a rule characteristic, and, in fact, speech combined with the aspect, more often than not, determined the diagnosis of the plague. The speech was of two kinds. In the one it resembled that of a man under the influence of drink, the words being broken into syllables, and each syllable articulated with difficulty and hesitation, and in a more or less thick and husky tone. In the second variety the patient's reply would be pronounced snappishly, with an angry look, the forehead being thrown into wrinkles, indicating that he was annoyed at being disturbed. In other cases aphasia existed.

Before the rise in the temperature there is for several previous days a feeling of malaise, followed later by the appearance of a bubo, at which time the temperature begins to rise. It may or may not be preceded by a rigor. Children always show a higher rise than in the case of adults, the general range being from 102 to 105 F., with morning remissions and evening exacerbations with a difference of from 1 to 2 degrees. The temperature generally falls by lysis—sixth to tenth day—crisis being exceptional. When there is a rapid fall in the temperature it almost invariably indicates impending death.

The appearance of buboes is usually coincident with the initial rise of fever, and is characterized by pain, tenderness and swelling. In most cases the pain is severe, but exceptionally the buboes could be handled without giving discomfort. Swelling was always marked, due to inflammation of the gland, and to effusion or infiltration, serous, serosanguineous or hemorrhagic around the buboes. The size of the bubo was found to be quite independent of the gravity of the case. (Regarding the location of the buboes, see *Journal* xxxiii, No. 3, p. 178.)

At an early stage the nervous system is profoundly affected; headache, vertigo, intense pain at the back of the head, over the frontal region, along the spine or in the course of the sciatic nerve, muscular twitching, tremors and subsultus are present. Delirium may appear on the third or fourth day, and may be acute, or of the low muttering variety, as in typhoid fever. In some cases hypersensitiveness was observed so that the slightest touch would excite screams.

In no other acute disease does the pulse—an index of the circulation—present so many variations, in force, frequency, volume and tone, as in bubonic plague, and in no other disease is the disproportion in the normal ratio between the pulse, temperature and respiration so divergent. The pulse varies with the character of the disease. The full bounding pulse, so often associated with high temperatures, is conspicuous by its absence, and in the majority of cases the pulse is easily compressible, extremely feeble and very frequent. As the case advances, the pulse becomes intermittent, regular or irregular, more often the latter, and distinctly dicrotic. The dicrotism was extremely well marked in some cases, and in advanced ones was considered characteristic. Failure of the heart's action was either sudden or gradual, with consequent collapse. No case of sudden death during convalescence was observed.

The blood was found not to be markedly deprived of its hemoglobin, there being present from 65 to 80 per cent., and leucocyte count from 12,000 to 28,000. Bacteriologic examination of the blood was undertaken by the Austrian commission, with the conclusion, like that of the other commissioners, that cover-glass preparations of stained blood were not only unreliable, but extremely fallacious, and that the only reliable test was by means of cultures.

Increased frequency of the respiration is a marked feature

of the disease, probably due in part to hypostatic congestion of the lungs and edema of the larynx. The lips, teeth and gums are generally covered with sordes, and the mouth is dry, the tongue being covered with a thick white coat in the center, while the edges are red. The urine is generally scanty, high-colored, and serum albumin is always present. Microscopically, hyaline casts are seen. Hematuria rarely occurs. The eyes are always injected and suffused, and in many cases sub-conjunctival hemorrhage is very distinctly marked, the whole of the eye appearing as a large, bloody mass overlapping the sclero-corneal junction, but leaving the cornea free. Panophthalmitis with sloughing of the cornea may be present.

The points to be especially noted in making the diagnosis are as follows: 1. Presence of fever, high or low. 2. A quick, easily compressible pulse. 3. Furred tongue. 4. The aspect of the patient, as shown by the *facies pestica*. 5. The peculiar, hesitating speech. 6. The presence of a bubo. 7. Suffused eyes. 8. The presence of cough with rusty or hemorrhagic sputum.

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Replying to a correspondent *La Revue Medicale* states that hypnotism has been used with great success as a succedaneum for chloroform and ether and cites the following to show dates and operations performed under its influence: In 1829 Cloquet did a painless amputation of the breast; 1842, Dr. Ward of London amputated through the calf of the leg; 1845, Dr. Jolly of London did a shoulder amputation; 1847, Dr. Fourton of the same place made another calf of the leg operation; 1847, Ribaud and Kiars of Potier did a very severe extirpation of a maxillary tumor; 1845 at Charbourg, Drs. Loysel and Gibon did an amputation of the calf of leg; 1847, the method was used in extirpation of a cluster of degenerated cervical and submaxillary glands; 1849, Broca and Follin used it to incise an anii abscess; 1879, Velpeau made report to the Academy of Sciences on its usages, and from this time on it was used by various operators whose names are given, to do sundry operations as removal of ingrowing nails, broken needles and breaking up adhesions with thermocautery, and final mention is made of application during delivery. On the whole it is an interesting historical report, as well as possessing great clinical value.



## Editorial.

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Those intending to contribute papers in any of the sections will please send copy of same to chairman of section in which it is written so that those appointed to lead in discussion may have opportunity to prepare themselves along line written upon. This should reach the chairman not later than March 15, 1900. The names of those appointed to discuss the various papers will be announced later, as the chairmen make selections.

In a few short months a new state board of health will be inducted into office. This body in this state is clothed with great power and its scope of authority is very extensive. So

it behooves us common people and ordinary doctors to aid and assist the intelligent and properly directed efforts of this body towards the common weal. In this article it is our aim to direct attention to a legal provision which has not been taken advantage of by the profession throughout the state and in consequence has been largely overlooked, we mean the Department of Public Health created by the last legislature.

In our humble opinion, preventive medicine has been of as much, if not more, value, to the public generally than has actual physicking, and with this end in view before us, it were well that we take every opportunity to spread the doctrine of fresh air, sunshine, exercise, discrete eating, cleanliness, etc., and fact all those well-known—or we should say should-be-well-known—sanitary provisions which have in the past enabled the insurance companies to decrease their rates owing to the increased longevity. Sanitary education primarily has to come from men who think along sanitary lines, and physicians are more accustomed to so think than others hence it is that preliminary steps in this direction have to be taken by the medical profession. Now the law that was passed for us blazes the way for much good in this state and has but to be put in operation to demonstrate its great value. Some months ago attention was called to it in these columns and the hope expressed that active steps should be at once inaugurated best calculated to set the machinery in motion, but unfortunately nothing has been done and so the burden is once more taken up by ourselves to see what can be done in the matter.

Our sister state of Alabama has a law very similar to ours and its successful operation leaves little to be desired along this line. One of the most important points about the law of ours is the fact that local self-government is so strongly insisted upon and by means of this it were an easy matter to make our system work like a charm in its harmonious relations with the central authority, the state board. One of the points made by the unthinking for the past three years of quarantine and fevers, has been this very one of aliens being brought in to manage the health affairs of any community. By the workings of our Department of Public Health, of which every doctor in the state is a member, whether he will or not, the localities are managed by its citizens thus avoiding outside interference and giving no cause for complaint on that score. In our

opinion it were best for the state board to do away with inspectors as now maintained, and to pay its president a suitable salary and have him do such work as might be demanded in the way of inspection, etc. Reverting to our first thought, it is in the province of the state board to begin and foster all movements along sanitary lines, such as hygienic institutes, associations of health officers, sanitary teachings in the public schools, etc. In fact the board has an opportunity to make itself felt for the good of the public in many ways. The boards in many of the northern states have world-wide reputations as pioneers in many kinds of such work. It would also have a tendency to stir up a fresher scientific spirit among the profession throughout the state and thus make us more in touch with the times. It is always necessary to have a nucleus and the Department of Public Health most splendidly supplies this want, so let us all get to work and begin the forward movement and thus aid and support the Board in a much needed campaign of sanitary education.

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## Reports of Societies.

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### PROCEEDINGS OF MEMPHIS MEDICAL SOCIETY.

*Regular Meeting October 3, 1899, as appearing in Memphis Lancet for November.*

The Vice-President, Dr. F. A. Jones, Presiding.

Present were Drs. F. A. Jones, Williams, Lane, Andrews, Sale, Barton, Alfred Moore, Buford, Goltman, Braun, Black, Ellett, Heber Jones, Hill, Venn and Meyer. Visitor, Mr. Kahn.

Dr. G. G. Buford made a Report of Cases.

I Amnesic Aphasia. The patient was an elderly woman, and her principal symptom was the inability to remember certain words. Her memory was good until the present illness. She could not remember the doctor's visits from day to day, and could not apply the proper names to certain people and objects, and could not read certain words when written or printed. Her writing was not tested. There were no eye signs of intracranial pressure and a hemorrhage was diagnosed. The patient is improving.

II. The doctor was called to see a man in semi-coma,

with cold extremities, sweat, bronzed skin, temperature  $104^{\circ}\text{F.}$ , and liver somewhat enlarged. He was passing a moderate quantity of urine. He was given an antipyretic and a purge, in response to which he purged so violently as to require an opiate. Later he complained of pain in the rectum, and was found to have impacted feces. The urine contained indican, and the case was regarded as one of Toxemia from Intestinal Indigestion. Indican is formed from Indol, is eliminated in the urine, and is significant of intestinal indigestion. This urine will stain a napkin. Another dark urine is that containing melanin from a malignant growth. This urine turns black and will not decompose.

Dr. E. C. Ellett mentioned a case similar to the first one, which he saw last winter in consultation with Drs. Henning and Hall. The patient was an elderly lady and presented the same symptoms that Dr. Buford's patient did. She was seen about eight months ago, and during this time had made but little change in her condition.

Dr. M. Goltman reported a case of Gangrenous Colitis. The patient was a man aged 32, who had dysentery five weeks before coming under his observation. He was then having from one hundred to two hundred evacuations of a little bloody mucus, with tenesmus each day. In the rectum a large, boggy; fetid mass was found, which proved to be a gangrenous cast of the rectum. The temperature was  $105\frac{1}{2}^{\circ}\text{F.}$  Malarial organisms were found in the blood, but though removed by quinin, the temperature continued up to  $102^{\circ}$  to  $103^{\circ}\text{F.}$  Under ether the sphincter was dilated, the bowel cleared of a large black slough, and the raw surface touched with nitric acid and irrigated. This was repeated twice a day for ten days, the whole rectum sloughing away. Pain in the left iliac fossa developed, followed by the passage of a slough eleven inches long and a profuse hemorrhage. The pain then disappeared. The patient rallied and was better for a week, when he passed a clot as big as two fists, containing a smaller cast. The patient then declined, with symptoms of concealed hemorrhage, the bowel movements continuing till death.

Dr. Heber Jones said that these cases are rare, and his experience the treatment is very unsatisfactory.

Dr. Buford has followed out the rectal irrigation treatment of diarrheas and dysentery with good results. In one



case similar to Dr. Goltman's the patient died of sepsis and inanition. In another case recovery followed treatment with irrigation, codeia and antipyretics, but the patient had a cicatricial narrowing of the rectum and occasional fecal impaction which is relieved by castor oil.

Dr. F. A. Jones said that over 99 per cent. of these cases die. He had had two, both complicated with abscess of the liver, which was diagnosed ante mortem and confirmed post mortem. In one patient operation was not advised; in the other it was advised but declined. He referred to H. C. Woods' suggestion of nitrate of silver irrigations.

Dr. Goltman said that his patient had a hepatitis which was relieved by a fly blister. Stretching the sphincter relieves the pain and tenesmus. It must be done under general anesthesia.

Dr. Ellett recalled the fact that the treatment of these cases by stretching the sphincter and local application was originated by a member of this society, Dr. R. B. Maury, under the title of "The Topical Treatment of Dysentery."

Dr. E. P. Sale said that in a recent discussion of Typhoid Fever one speaker said that typical cases of the disease are rare, the cases lacking the mental symptoms and tympanites. Since that discussion he has seen two such cases, apparently very mild, and both died from perforation after convalescence was established. He regarded both as a typical typhoid. Many cases of typhoid as it now occurs here are complicated.

Dr. Goltman has recently had a similar case.

Dr. Heber Jones does not see many cases of typhoid now, and has seen no cases that he diagnosed as typhoid this summer. His fever cases lack the typical symptoms of typhoid fever. All the cases he has ever seen die of perforation were typical cases. He asked the opinion of the society regarding the advisability of an ordinance compelling physicians to report their cases of typhoid fever, in order that the Board of Health might investigate the source and take precautions against its dissemination. He favors it. The blood test is probably the most reliable diagnostic sign, but of course the Board of Health would accept the attending physician's diagnosis.

Dr. Sale favors the ordinance, but thinks the trouble would come in making an accurate diagnosis.

Dr. Jos. Venn has seen cases of typhoid fever which, while lacking the typical clinical symptoms, gave a positive clinical test (Widal).

Dr. Buford said that the commission appointed to investigate typhoid fever in the camps in 1898 found that local causes (as water, etc.), had. He has seen several typical cases and thinks the disease differs now from what it used to be largely on account of the difference of the food used then and now, yielding a different class of poisons. He thinks tuberculosis should also be reported, and said that in some cities the Board of Health sent out circulars of information in regard to the artificial feeding of infants.

Dr. Heber Jones is not willing to admit that food and drink are not direct transmitters of disease.

Dr. Goltman said in regard to sewer gas, that Sternberg found that animals resisting inoculation of typhoid could be inoculated after they were exposed to sewer gas.

Dr. Alfred Moore drew a diagram of a typical camp, showing that the earth-pits are in close proximity to the commissary, the foodstuffs being constantly invaded by flies from the earth-pits.

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## Abstracts and Extracts.

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THE TOAD AS AN INTERMEDIARY HOST OF THE TYPHOID BACILLUS.—Dr. G. Law makes an ingenious suggestion in the *Medical Standard* for October, and one that is worthy of scientific investigation. He points out that toads and frogs spend the summer months ingesting flies and other insects. Flies, of course, swarm and breed around faecal matter. During the winter the toad hibernates, to reappear in the late spring. In view of these facts Dr. Law suggests that "a study of the intestinal contents of the common toad when he first comes out of hibernation in the early summer might reveal important facts in the life history of Eberth's bacillus." The author quotes a curious case in which, in June, 1899, there was an outbreak of typhoid in an outstanding farmhouse, there having been no cases of typhoid fever in the neighborhood, either city or county, since the preceding November. Three members, ranging from 5 to 20

years old, were first attacked simultaneously, and subsequently two others were attacked. There seemed to be no explainable source for the first cases. In August, however, a few days after the last case began, "portions of the skin and muscle of a toad were drawn from the tap at the kitchen sink." On these premises the author builds the following ingenious theory: In the preceding October many casuals were employed on the farm. One of these may have had ambulant typhoid and used the outdoor privy. From faecal matter to fly, and fly to toad passed the bacillus, remaining dormant until hibernation was over, when one or more toads found their way into the well and thus started the outbreak.—*New York Medical Journal*.

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#### INDICATIONS FOR OPERATIONS UPON THE GALL BLADDER.

—1. Cases marked by repeated attacks of gall-stone colic, which resist all treatment and are exhausting the patient's strength; 2, when there is evidence of suppuration about the gall bladder, due to gall stones; 3, in empyema; 4, in dropsy of the gall bladder, and 5, in obstructive jaundice, due to gall stones in the common duct—Robson.—*New York Medical Record*.

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DISGUIISING THE TASTE OF NAUSEOUS DRUGS.—In his "Pocket Formulary of Diseases of Children" Dr. L. Fryberger has devoted considerable attention to the important question of how to disguise the taste of nauseous drugs. The following are from the list: Acetonilidium, gr. i., disguised by gr. iii. of white sugar; ammonii bromidum, gr. i., by m. v. syr. aurantii; ammonii carbonas, gr. i., by m. v. syr. aurantii or tolu; belladonnæ tinct., m. ii., by m. ii., syr. auranti; calomel, gr. i., by gr. iv. saccharum lactis; cascara sagrad., ex. v. fl. m. x., by m. v. syr. zingiberis and ext. liq. uiritiæ fl.; chloral hydras., gr. i., by m. v. syr. aurantii or pruni virginianæ with dr. i. aq. uiritiæ fl.; chloral hydras., gr. i., by m. v. syr. aurantii; ferri chloridi., tinct. m. i., by m. v. syr. aurantii or glycerinæ; nucis vomicæ tinct., m. i., by m. xx. syr. aurantii; liq. potassii arsenitis, m. i., by dr. i. aq. cinnamoni or m. v. syr. tolu; potassii acetat., gr. iii. by m. xv. syr. rubi idæi; potassii bromidum, gr. iii., by m. xv. syr. aurantii; potassii iodidum, gr. i., by dr. ss. aq. menth. pip.; sodii salicylas, gr. iii., by m. v. syr. simplicis and gr. i. aq. cinnamoni.—*Medical Record*.—*Medical Dial*.

**HYPODERMIC ALIMENTATION.**—H. Strauss (*Zeitschr. f. Prak. Arzt.*, 1898, page 495) advises the hypodermic injection of about 100 grams sterilized olive oil in cases in which rectal feeding would be indicated but in which, owing to diarrhea or other causes, the latter method can not be carried out. He considers the hypodermic method in severe gastric ulcers, in the refusal of food on the part of the insane, in high stenosis of the bowel with ileus, in typhoid fever, etc. The procedure is well borne. Micheli and Fornaca (*Il Morgagni*, 1898, page 182) have had good results in the use of olive oil subcutaneously. In two cases of diabetes and in one of advanced phthisis there was a gain in weight. These injections have the advantage over nutritive emulsions in that they are made at long intervals during which time the injected fat is slowly absorbed and utilized.—*St. Louis Courier of Medicine*.

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**RECTAL FEEDING.**—The following enema is suggested by Boas, when rectal alimentation becomes necessary:

R. --Milk . . . . .	℥viii
Salt . . . . .	gr. xxx
Claret . . . . .	℥ss

To this add prepared cereal food one tablespoonful and the yolks of two eggs. Use one to three in twenty-four hours.—*Journal of the American Medical Association*.

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**TREATMENT OF TAPEWORM BY USE OF MORPHIN INJECTED INTO THE PROTRUDING PART OF THE PARASITE.**—J. W. Kimme in *Medicine*, for September, 1899, says that "The attempt at removal of tapeworm by any of the tannicides is followed by a large number of failures which, by the method which I have used in two recent cases, might be converted into successes.

"It is a very common occurrence for the parasite under such circumstances to drop down into the lower part of the intestine and reattach itself with a surface of a considerable portion of its caudal extremity. I have sometimes been able, by copious injections of water or saline solutions, to bring away the head of the worm, but far more frequently have I succeeded only in breaking off the worm.



"Recently it occurred to me while attempting to remove one of these pests, fifteen feet of which was visible and ten feet invisible, that I might take advantage of the latter portion by properly medicating the protruding part. I, therefore, after tying a string moderately tight around the worm about three inches below the patient, injected above the string, directly into the substance of the worm, one-half grain of morphin sulphate; the protruding part was then severed with scissors just below the ligature, the three or four inches remaining was passed up through the sphincters and left there about ten minutes.

"A large injection of water was then given, and the upper portion of the worm was passed motionless and apparently dead.

"Since reporting this case in the *Iowa Medical Journal*, I have treated the other case the same way and with the same results.

"Most varieties of tapeworm have a pair of longitudinal vessels passing from one extremity to the other, through all the segments, and toxic substances injected into the body of the worm are taken up by them and reach every portion of the parasite.

"The mistake is often made of simply prescribing some remedy with directions for the patient to use. Only a small percentage of successes can thus be expected.

"The only proper method of treating tapeworm is about as follows:

"The patient does not fast or have any preparatory treatment whatever, except that he eats no breakfast on the morning of the day of treatment. At about 9 a. m. he is given a dose of infusion of pomegranite, or, what is far better, of tannate of palbotierin, with one or two drops of croton oil. The patient should be kept at rest, generally under the personal observation of the physician, for two or three hours, when movements of the bowels will most likely occur and a whole or a part of the worm be passed. If only a part protrude, then the hypodermic should be used as above described."—*New Orleans Medical and Surgical Journal*.

[The above strikes us as being a most excellent suggestion and is on a line with a procedure we used to follow in the tropics in treating the so called flesh worm by injection of chloroform into the substance of the parasite.—ED.]

## Medical News and Miscellany.

Contributors to this journal can secure reprints of their articles, in pamphlet form, at very low rates, by addressing The Biloxi Herald, Biloxi, Miss.

With their usual progress the Antikamnia people are out with several new formula. It is a source of gratification to see an effort on the part of the manufacturing chemists to please practitioners by supplying them with convenient medicaments, but it has one rather serious objection, and that is the facility with which the public become acquainted with the especial tablet or pill and their too indiscriminate usage. It were better, in our opinion, to entirely leave off the initials and thus throw all mental effort up on the doctor. The doctors will appreciate them more then.

THE NEW ORLEANS POLYCLINIC THIRTEENTH ANNUAL SESSION OPENS NOVEMBER 20, 1899, CLOSES MAY 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, La. mar1900

Our cordial thanks are extended the Antimamnia Chemical Company for one of their nice little pocket cases containing samples of their valuable synergetic compounds, Antikamnia Laxative Tablets and Antikamnia and Quinine Laxative Tablets. The formulæ are in line with modern medication and are really useful to the profession.

TREATMENT OF MALARIA.—Dr. A. G. Servoss (Medical Council, October, 1899,) states that we have two classes of patients who can not take quinine. First, those who do not like the inconvenience which it causes, such as headache, dizziness and ringing in the ears. Second, those to whom it is rank poison, and to whom under no circumstances should it be given. He refers to a case in which one grain of quinine, given without the patient's knowledge, will bring on complete collapse, with cyanosis, unconsciousness and symptoms of heart failure. Another in which a small dose will bring on all the symptoms of

scarlet fever in its malignant form. He states that he could name a large number of cases of erythema and urticaria due to the same cause. In all those cases in which quinine is not well tolerated he is in the habit of giving salicin in ten-grain doses, three times a day, and also three grains of quinalgen, three times daily. The secretions should be kept active by the use of vegetable or mineral cholagogues and diuretics.

**SANMETTO FOR DEVELOPING COMELINESS OF FORM.**—I confess that I have used Sanmetto for years and always with excellent satisfaction to myself and patients. This case for which I ordered Sanmetto was on the experimental order. Young lady, about 21 and contemplating marriage, to her exceeding sorrow she had practically no bust development whatever. I wanted to know whether Sanmetto would have any decided effect upon the mammary glands or not. She has taken one and one-half bottles, and bust measure has increased over one inch. The bosom though small is now well formed and firm.—J. F. Locke, M. D., Commander E. T. Wood Post No. 100, G. A. R., Long Prairie, Minn.

Drs. J. R. Tackett and R. L. Turner of Meridian are taking a course at the New York Polyclinic.

Dr. J. B. Fean, formerly of this state but now of China, is also at this excellent school.

I had rather a queer experience with your sample of Ecthol. I took it twenty miles north and gave it to Nicholas Diaz. He has had scrofula for four years and has paid out in that time over \$1,000. He took a teaspoonful every two hours for four days, after that a teaspoonful every four hours until he had used two bottles. He walked in here to-day, cured. All signs of swelling and those awful scrofula sores and blotches on his face are gone. Of course his soft palate was destroyed by the disease long ago, and he thought I could make him a new one. I replied only God can do that. He paid me enough so I can buy more of your remedies, and I shall keep a supply on hand.—Chas. A. Bailey, M. D., Canatlan, Durango, Mexico, September 29, 1899.

**A SUBSTITUTE FOR SUGAR IN DIABETES.**—Notwithstanding the large number of remedies brought forward from time to time for the cure of diabetes, the dietetic treatment still continues to occupy the most important part in the management of this disease. In view of the fact that in severe cases the use of starches and sugars is absolutely interdicted, much ingenuity has been exercised in devising substances which would replace these foods. While the attempts to produce substitutes for starchy foods have not been very successful, much has been accomplished in the discovery of artificial sweetening agents, which

enable the patient to gratify his craving for sugar, without producing the harmful effects of the latter. Among the sugar substitutes sycose represents the latest stage in the evolution of a perfect product of this kind. It has a sweetening power 550 times greater than that of cane-sugar. Owing to its chemical purity, its freedom from the inert matter found in other substitutes for sugar, its pure taste and solubility, it is eminently adapted for medicinal use. Sycose is therefore well worthy of a careful trial in the treatment of diabetes and of all other diseases in which the use of ordinary sugar in any form is contra-indicated.

## Publications Received.

Hydrochloric Acid: Simple Method of Administering—Chas. D. Aaron, Detroit, Mich.

The Diagnostic Value of Palpation in Diseases of the Intestines—Chas. D. Aaron, Detroit, Mich.

The Failure of Antitoxin in the Treatment of Diphtheria.

The Other Side of the Antitoxin Question—Both by J. Edward Herman, M. D., Brooklyn, N. Y.

Empyema of the Gall-Bladder.

Rubber Gloves or Gauntlets.

Nephro-Ureterectomy for Traumatic Hæmato-Hydro-Nephro-Ureterosis—Above three by Dr. Jno. E. Summers, Omaha, Nebraska.

The Lessons of the Yellow Fever in New Orleans in 1879.—Ed. Souchon, M. D., Pres. Louisiana State Board of Health.

Syphilis of the Nervous System as the General Practitioner Sees It.

Report of a Case of Anæsthesia Produced by Mercury. With Remarks.

Ossesous Changes in Hereditary Syphilis—Above three by C. Travis Drennen, M. D.

One Hundred and Sixty-Six Cases of Cancer of the Pregnant Uterous Occurring Since 1886—George M. Noble, M. D., Atlanta, Georgia

Involvement of the Eye and Ear in Cerebro-Spinal Meningitis—William Cbeatham, M. D.

Constipation; Its Treatment by Radical Measures.

Cardiac Disturbances from Gastric Irritation.

As to the Incubating Stage of Pertussis and a Hitherto Unrecognized Symptom.

As to the Insusceptibility of Vaccinia; A Clinical Contribution to the Question.

Above four by H. Illoway, M. D., New York; formerly Professor of Diseases of Children, Cincinnati, O.



# The Journal

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## Mississippi State Medical Association.

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### Original Artcles.

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#### Variola As I Have Seen It In Mississippi.

BY H. H. HARALSON M. D. VICKSBURG, MISS.

Variola is an eruptive disease characterized by macule, papules, vesicles and pustules successively following each other. It occurs at all ages and in all conditions of life, both sexes being equally susceptible. The negro is more susceptible to the disease than the white race. It is spread by a virus the nature of which is not positively known. It is known that the morbid principle is not confined to the patient, but may be diffused in the atmosphere about him. Articles of clothing and bedding which have been about a patient suffering with variola may become infected and retain the infection for a long time. The spread of the disease is prevented by immunity acquired by a previous attack or by vaccination.

The most usual period of incubation is from 10 to 13 days. The stage of invasion is sudden with a violent rigor. This is followed by fever, 103 degrees to 104 degrees F., with slight morning remissions. The fever continues until the period of eruption. The pulse is strong, full and accelerated. The face is red and eyes injected. There is headache, violent pain in back, sleeplessness, loss of appetite, thirst, nausea and vomiting with constipation. There may be convulsions, delirium and

dyspnoea. There also may be a prodromal rash. The eruption appears usually at the end of the third exacerbation of the fever and is seen first on the forehead, about the eyes and mouth or on the scalp, and from these points extends to the body and extremities. When the eruption first appears it consists of a red point, somewhat elevated, a little hard and rolls under the finger, reminding one of a small shot under the skin. The eruption may be discrete, corymbic, coherent or confluent. About the second day the red point enlarges into a papule and one day later the papules are transformed into vesicles which are filled with transparent, serous fluid. One to two days later the serous fluid of the vesicles becomes milky and then purulent. In the fully developed vesicles a central depression appears. In the discrete form there is a decided fall of temperature and amelioration of other symptoms with the appearance of eruption. This is followed by secondary fever about the period of pustulation. In the confluent form there is a remission of fever at the appearance of the eruption but the temperature does not reach normal and there is an immediate exacerbation.

The involvement of the mucous surfaces are simultaneous with that of the skin. The pharynx, larynx and trachea are involved, followed by difficulty in swallowing, and cough. In the severe forms of the disease the eruption may extend to the bronchi, intestines, urethra and vagina. The drying of the pustules begin about the eleventh day and when the crusts are detached they leave behind, their marks, known as pits. The mortality is from 25 to 35 per cent. The above is a brief description of small pox, as it ordinarily exists-

I now beg to read an extract from a report made by Dr. H. A. Minor, Health Officer of Noxubee county and myself, Jan. 25, this year which covers the main points of the disease as we saw it in Noxubee county and as it now exists in this state.

"Some time during last summer, in July or August, a negro presented himself at the office of Dr. B. B. Jones, of Mashulaville, in Noxubee county, about twelve miles west of Macon, for treatment. Dr. Jones diagnosed the disease with which this negro was suffering as varicella or chicken pox. There is some uncertainty as to where this negro came from, but certainly from Hattiesburg or some point in Alabama, south of Meridian on the Mobile & Ohio Railroad. Since the appearance of this negro in

the neighborhood, Dr. Jones has prescribed for 178 cases of the same disease, about forty of whom were whites with only one fatality, and this a feeble old gentleman 78 years of age, to be hereafter mentioned. Some three or four weeks ago Dr. Jones became suspicious of a case and called Dr. Minor, the County Health Officer, to see it. This was the first intimation that Dr. Minor had of the prevalence of an eruptive disease in the county. He made several visits to the neighborhood and saw many cases of the disease. Not being satisfied as to its nature he asked for a consultation with a representative of the State Board of Health, and Dr. H. H. Haralson, of Vicksburg, representing said board as inspector, was sent, arriving in Macon the night of the 23d inst.

Together, on the 24th, we went to the neighborhood of Mashulaville and saw about thirty cases of the disease, in all its stages. We have concluded to make a joint report of the facts as we find them after a careful investigation, so that you may fully appreciate the conclusions deduced from our finding.

Dr. Jones estimates that two hundred cases of the disease have occurred in the neighborhood of Mashulaville, 178 of these having been prescribed for by him, with one death.

At our visit to the neighborhood, as above stated, we saw about thirty cases of the prevailing exanthem. We examined young and old, black and white, male and female, embracing cases in all stages of the disease from its incipency to full recovery. We found the following characteristics: Patients taken with chilly sensations and in some few instances chills, then fever, with slight pains in head and limbs. Fever usually lasts two or three days, not high. Children have no fever so far as we could ascertain. The eruption occurs as macule or papule, which in a day or two becomes a vesicle. The vesicles begin to mature in five or six days and at once begin to dry up. This drying up process is the transformation of the contents of the vesicle into a scab, which is small, dry, brown and oval. On about the tenth or twelfth day these scabs begin to drop off, leaving a clean, dry, healthy skin. The vesicles seem to be covered only by the scarf skin, freely movable and painless. The adjacent skin is entirely free from any pathological conditions, however close the vesicles may be to each other. In some instances these vesicles are so numerous on the face, that they en-

croach upon each other, yet they are always discrete. In no instance did we see any vesicles upon the feet and ankles, and very few below the knee. There was little complaint of itching, and that usually after the maturity of the vesicles. Appetite invariably good and spirits bouyant. Very few of the patients remained in bed during the course of the disease, most of them moving freely about in and out of doors.

We noted the absence of severe chills and hyperpyrexia in all cases. The absence in a great degree of pain in the head; the entire absence of pain in the back even in the more severe cases; the absence of areola around the vesicles; the absence of all pain about or on the vesicles even upon pressure; the absence of pus, except that in a very few individual vesicles we found a small amount of moisture under the scab, removed before perfectly dry, which macrosocically resembled pus. No vesicles in any case were umbilicated. No evidence of sepsis, except the case of Mrs. Ethridge, to be hereafter described. No affection of the mucuous membranes of the mouth, nose or throat. No loss of appetite after the third day and in many cases no loss of appetite even from the beginning. No constitutional disturbance except in cases of adults during the first few days of the disease. No disturbance of the bowels or kidneys. No odor, even in the severer cases. No pitting, save a very slight pit on the nose in two cases seen by Dr. Minor on previous visits. The desiccation of the vesicles of the face did not antedate those on the body and limbs. No secondary fever in any case.

The only death that has occurred was in the person of Mr. Ethridge, a very feeble man, 78 years of age, who in addition to the infirmities of age, had suffered from abscess of the liver during last spring and summer. Neither of us saw this case, consequently we cannot enter into its details. The only other case requiring individual description is that of his wife, a feeble, delicate woman, 58 years old. This couple had been living in a very malarial district for years. This case did not differ from the other cases in its early stages, nor had she had secondary fever, nor has there been a failure of appetite, nor disturbance of the bowels or kidneys during the course of the disease; but when the time came for the vesicles to dry up, from what we could ascertain, blebs or bullae appeared around a number of these vesicles on the face and upper part of the thorax. From



that time until we saw her yesterday the history is lost to us. On yesterday the face presented the appearance of a suppurative dermatitis. No vesicles discernable, but the face presented the appearance of one suppurating surface. She had no fever, had a good appetite; was cheerful and hopeful. The vesicles elsewhere on the body and limbs presented the appearance characteristic of the prevailing disease."

The above extract is a fair representation of the disease as I have seen it in Mississippi. After making this report, in company with Dr. H. A. Gant, I visited Vossburg and Hattiesburg, on the New Orleans and Northeastern Railroad, and at these points saw quite a number of cases. Among these I saw three cases which presented all the characteristic elements of variola as described in the first part of this paper. Alongside of these three typical cases, however, were many presenting the same appearance as the cases I had previously seen in Noxubee county with Dr. Minor. Since then I have seen other cases and in no instance have they differed from the Noxubee county cases.

Many of these cases have been vaccinated since their recovery and I am told that not one of them has taken. Dr. Watkins, of Hattiesburg, states most positively that general vaccination prevents the spread of the disease.

It is claimed by some, Dr. Janeway of New York among the number, that variola does not give immunity to vaccine virus and is not a test as to the character of the disease. This question is one of considerable interest and the results as obtained by Drs. Watkins, Hand and Minor should be given to the profession. The text books are silent on the question, but it does seem to me that if vaccination renders a person immune to variola, variola would render a person immune to vaccination.

### Extra Uterine Pregnancy.

By L. A. MURDOCK, M. D., WOODVILLE, MISS.

In the latter part of June, 1882, I was called in consultation with Dr. D. P. January. The patient was a negro woman, about twenty-five years old. I obtained from her the following history: In August, 1878, she became pregnant for the first time. She had all the usual symptoms of pregnancy, cessation

of menses, morning sickness and felt the fetal movements between the fourth and fifth months. In May, 1879, she had what she thought were labor pains. The pains were rather irregular and lasted four or five hours. The next day she was at work in her garden and felt perfectly well. The movements of the child stopped suddenly five days afterwards. Her health was good for about two months, when she began to have pain in her abdomen, back and limbs. Her abdomen increased considerably in size and became very tender to the touch. A few days later she had a hard chill, followed by very high fever. In a few days the fever subsided somewhat, but she said she had some fever for several months. She lost flesh and strength until at last she had to take to her bed and had not been able to be up again when I saw her.

A physician was called in whose diagnosis was "ovarian tumor." She was under his treatment more than a year, but getting no better she abandoned all hope of getting well and had no treatment until Dr. January was called in ten days before I saw her. About eighteen months before she came under my observation, she noticed that the only position in which she could get any comfort was lying on her back, for when in any other position there was a sensation as if something was cutting in the abdomen.

Upon examination, I found her very much reduced in flesh. Abdomen large and most prominent at umbilicus a little more to the left side. Temperature 102, constant pain, vomiting, profuse perspiration, and some diarrhoea. About one inch below the umbilicus and a little to the left of the median line was an opening from which flowed freely a dark brown very offensive fluid. Upon introducing my finger into this opening I easily recognized the cranial bones of a fully matured foetus and advised an immediate operation, to which she gave her consent. The next day we operated by making an incision in the median line extending from the umbilicus nearly to the pubes. We removed first the bones of the head, then those of the upper extremities, the vertebrae, pelvis and lower extremities. All of the bones were disarticulated except the vertebrae, which were held together by their ligaments. These bones all seemed to be lying loose in the sac. The sac was adhered to the abdomen, which was very thin. We dissected it loose from the

abdominal walls and removed the sac. We then closed the abdomen. In twelve or fourteen hours her temperature was normal, and in four weeks she was able to be up and attending to her household duties. Her menses appeared once, about four months after the operation, when she again became pregnant. She had a normal pregnancy and labor and gave birth to a male child. In about fourteen months she found that she was pregnant again and gave birth to another male child. Both children were well developed and are still living.

She did not menstruate again until sometime in 1888. A few days before they appeared she complained of severe pain in her abdomen just below the umbilicus in the track of the incision made by us six years before. The abdomen became prominent at that point and in a few days an opening occurred which discharged a large quantity of thick yellow pus. The opening closed in four or five days and she had no trouble until her next menstrual period, when the same thing again took place. Up to May, 1894, when I last saw her, she had the same trouble at each menstrual period; otherwise her health is good and she does good work as a field hand.

### **Crico Tracheotomy, With Report of Two Cases.**

BY JULIUS CRISLER, M. D., FLORA, MISS.

Imperative tracheotomies, when thrust upon us, will never cease to be a most formidable task to any conscientious surgeon, however skilled and perfected he may be. To plan and prearrange for the operation, with all the possible facilities at hand, simplifies the undertaking very much, materially reducing its perils and offers comparative safety to the wretched sufferer, though with an improved technique and scrupulous listerian asepticism the operation still has its dangers in the hands of the most skilled and experienced.

Prof. Gerster, whose surgical ability and brilliant genius stands unquestioned, says that, "the belief that tracheotomy is an easy operation is by no means justified by my experience," and that "occasionally on a slender neck, and when competent assistance can be had, it is an easy enough proceeding; but in most cases, especially on children, it calls for the best qualities of an experienced and cool surgeon."

The improved technique of dissection and scrupulous asep-

tic precautions have materially reduced the dread of the undertaking.

A trinity of precautions must be met in every operation, however hasty and embarrassing the condition seems. To obtain any success, we must first be as aseptic as possible. This cannot be too exaggerated and should be only limited by the urgent condition of the sufferer, as we must consider the perils of an infection; that not infrequently terminates by extension of inflammation into the parenchyma of the lung itself.

□ Our attention is next directed to the avoidance of hemorrhage, as 'tis said that every drop of blood lost in doing tracheotomy weighs heavily, in many ways, against the successful termination of the case. This can be avoided by making the dissection, layer by layer, between thumb forceps, as directed by Prof. Hermann Tillmanns of Leipsic, ligating the little vessels, as they present themselves, on both sides of the knife, before they are cut if possible,

The third step of the operation consists in entering the trachea in the median line and by avoiding the thyroid capsule with its complicated plexus of turgid veins. In superior tracheotomy this best accomplished by Bose's method, which is essentially as follows:

After dividing the skin, platysma, and superficial fascia down to the two groups of muscles, which are now incised in the median line, and retracted, we come to the cricoid cartilage, with the two layers of deep fascia that form the body of the capsule of the thyroid. Placing the nail of the left index finger upon the upper margin of the cricoid, with its palm surface looking down on, and retracting the thyroid body, the fascia is now opened by a short transverse incision directed against the upper edge of the cricoid cartilage. When this is done a blunt hook can be inserted through the transverse slit behind the thyroid gland which can be drawn down so as to expose the cricoid cartilage and membrane and the upper rings of the trachea, which can now be incised in the median line and the wind-pipe thus opened.

This step is a particularly cautious one, as the mistake of incising the wind-pipe on its lateral aspect is a very serious obstacle to the safety and comfort of the patient while using a canula.



Impromptu tracheotomies are thrust upon us when least expected and when we are least prepared to decide on definite action, as one of the following cases will show:

Case I. Andrew J., mulatto, aged 9 months, fat and healthy. On October 10, '98, while playing with grains of corn, forcibly inspired one into the trachea, which induced the most marked cyanosis and violent air hunger. In this condition he was hurriedly brought to my office. Without a very definite idea of the cause of the asphyxia, I proceeded to investigate the upper part of the larynx with my finger. This induced emesis, which gave considerable relief to the breathing by the grain of corn being forcibly sucked into the mouth of the left bronchus, as shown by the absence of air in that side; though fortunately not beyond the bifurcation. This allowed the air to enter the right lung, and as such a quiet obtained, it was decided to await developments.

After two days of comparative comfort, the child's condition grew more alarming and pitiful. There was intense engorgement of all the superficial neck veins, great anxiety and restlessness with every indication of fast approaching dissolution. I could not get medical aid, so decided to venture alone in the undertaking, being assisted by the child's parents, who realized the child's peril and cheerfully consented to the operation with its explained dangers, in preference to death's relentless hand, which seemed well nigh laid upon their child.

I gave chloroform, opened the trachea, as outlined above, by Bose's method, under all the antiseptic environments obtainable. I was fortunate, after several attempts, to firmly grasp the swollen kernel of corn and withdraw it. No blood was allowed to enter the trachea, so respiration at once became easy and natural. The wound was closed in the usual way and union, per primam intentionem, was secured and an uneventful, though slow, recovery ensued.

My second case shows conclusively the eminent dangers that follow tracheotomy when it is done without proper aid in the after attention of the case from a skilled and attentive nurse. Also the great disadvantage of a make-shift retractor in the absence of a canula or trachea tube.

Case II. Wilks G., male, aet.  $2\frac{1}{2}$  years, was seen by me on the morning of the 25th of last August. This child was suffer-

ing with dysphagia and marked dyspnœa, the latter threatening his life every moment. I offered tracheotomy as the only relief, and called in consultation Dr. R. W. Rowland, in the afternoon, who kindly administered the anæsthetic and otherwise valuably aided me in the case.

The Bosc's operation was done, as described in the preceding case, and the cricoid and trachea opened above and behind the isthmus of the thyroid gland. A loud, shrill sound was heard when the knife entered the lumen of the trachea. This was followed by a few good inspirations, when to all appearances respiration ceased entirely.

This is called apnœa and usually follows where the wind-pipe has been opened after prolonged dyspnœa, and is, to some, the cause of considerable alarm. It is due to the habituation of the patient to a very small allowance of air. The first good full inspiration of air, through the incision, amounts to dozens of labored respirations, hence the pause. I must confess that the delay caused me such uneasiness as to impel me to resort to artificial respiration though I am convinced that it was unnecessary, the apnœa being the sole cause of delayed breathing. The lips of the wound in the trachea were next secured with separate strands of strong silk, and these carried in opposite directions and tied behind the neck.

There was such an indefinite history of the child's trouble that we were unable to locate the cause. So I explored the upper larynx in all directions, but could not locate any foreign body and, as the child was now breathing naturally, having awakened from the chloroform, we left, expecting to return the following morning and introduce a canula as soon as it could be secured. During the later hours of the night the child became suddenly asphyxiated and died.

No autopsy was permitted, so I was left to conjecture the cause of death which was doubtless produced by one of two things, either there was a foreign body in the upper part of larynx, that was overlooked by me and during relaxation incident to sleep was inspired into the trachea below my incision, or the secondary swelling of the mucous membrane that always follows tracheotomy became sufficiently great as to occlude the opening. At all events the possession of a trachea tube at the operation would have obviated either calamity.

## The Practical Observance of Asepsis and Antisepsis by we Country Surgeons.

By J. A. CRISLER, M. D., YAZOO CITY, MISS.

The two fathers of surgical aseptic and antiseptic technique, Mr. Lawson Tait and Sir Joseph Lister, like all great leaders, have followers with every shade of faith and of every conceivable degree of septic, aseptic and antiseptic acumen; disciples whose interpretations of these master's ideas are as varied as their many faces and dispositions, these running all the way from a willingness to operate in a veritable cesspool of filth and uncleanness to the most rigid and ultra disinfection of clean-cut tissue, even to its chemical destruction.

Mr. Tait's real followers have been few, but those who pretend to follow him are legion. I have often associated a parallelism between Tait and his theory of asepticism and Ingersoll and his theory of agnosticism. While the one is wholesome and the other unwholesome, yet there is a deal of likeness in the magnetism of these two theoretical masters, and a similarity of results obtaining from their respective doctrines, notable in the various avenues of social and surgical life, namely: A tendency to a degraded idea of the Creator's handiwork on the one side and a poor degree of surgical cleanliness on the other.

I doubt that there will ever be but one Ingersoll—that lord and master of clean English and wicked wit; and I fear that there will never be but one Tait, whom the very gods seem to have blessed with power and success, who can laugh at microscopic research and poultice with germs. Yet by this same magnetic power and great surgical achievements, he has done more to clog the wheels of rational surgery and has been indirectly instrumental in causing more suffering to the human race since his advent than all the quacks and charlatans combined.

“O, wicked wit and gifts that have the power to seduce.” There are numbers of otherwise good doctors who feel licensed to ignore antiseptics because Tait can, and unlike him they will do minor surgery without even giving the field of operation the benefit of soap and pure water, and, but for kind nature's hand, always would, and often do, enthrone either septicemia, tetanus, erysipelas or sundry forms of phlegmon and death.

I have often thought it a real misfortune that many such cases recover. If we all knew that our cases, which we ourselves infect or mistreat would die, how careful and antiseptic we would soon become.

With conservative nature to wall off infection, on the one hand, and the ignorance of the laity, with their catching cold hobby, on the other, we are still respected for our wisdom, albeit, we frequently install septicemia in simplest surgery.

Gentlemen, since the days of Sir Joseph Lister, who first taught us to thoroughly antisepticize, we are morally responsible to God and man for such criminal carelessness and disrespect. It does seem to me that the time has come when every doctor should be alive to his responsibility in all that pertains to surgery, especially in minor operations. We, who are country surgeons, are not called upon every day to do a hip joint resection or a laparotomy, but we must often sew up fresh cuts, do vaccinations, open palmar abscesses, do minor amputations, dress gun shot wounds, and, in short, do many things that are thrust upon us, and it is sad but true that much untold suffering is wrought, yea, many unnecessary graves dug by our own careless hands.

"I could a tale unfold whose lightest word  
Would harrow up thy soul, freeze thy young blood,  
Make thy two eyes like stars start from thy spheres  
And each particular hair to stand on end  
Like quills upon the fretful porcupine."

This tale is too familiar to the honest surgeon to need unfolding. Let us only contemplate its magnitude and truth. The sooner we acquaint ourselves with the streptococcus, the staphylococcus and other commonplace germs (and the effects of their metabolism) and with the etiology of tetanus, erysipelas, and such other commonplace diseases, the sooner we will enforce rigid antiseptic measures against them under all conditions. Then will long-suffering humanity rise up and call us blessed. Then will the cork leg and crutch factories go into bankruptcy. Then will true surgery take its stand abreast with all sciences and arts, with its own soliloquy of peace and good will from all mankind.



### Otomycosis or Ear-mold.

BY W. A. JOHNS, CORINTH, MISS.

While not a frequent disease, comparatively, we encounter it enough to make it interesting.

I believe much of it is not recognized and terminates with impaired hearing and a chronic aural eczema. The causes are the same as cause the growth of mold (which is a vegetable parasite) outside the human ear,—moisture, heat and food to feed on. Living in dark, damp houses, a dust-laden atmosphere, introducing oils and other substances in the ear for the relief of pain, and any decomposing secretion or substance in the ear.

Many varieties of mold have been found in the ear and classified. The most common being the dark brown, *Nigricans*, the yellow or *Flavescens*, the green or *Glaucus*, and the grayish black or *Fumigatis*.

I have only seen the dark brown or *Nigricans*, and it is such a dark brown it might be called black. Itching is the most common symptom with more or less diminution of hearing, fullness in the ear, subjective noises and twinges of pain. The patient generally comes to you for relief of the itching. The other symptoms are generally minor ones, but the itching is at times intolerable. On inspection the canal is seen obstructed by a velvety or coal dust looking body. On washing this out you can see the mold growing on the membranes as plainly as when on top of a jar of jelly or preserves. Some cases are easily cured, while others require considerable time and trouble. I will illustrate by giving two cases which I treated during the past year:

Case I. Annie M., colored female, age 25. Complained of itching, roaring in the ear, twinges of pain and diminution of hearing. Her ears first commenced to trouble her six weeks previously. Examination showed a velvety black looking plug obstructing the canal. Washed the ears with warm water and removed considerable membrane covered with mold. After drying with absorbent cotton, the ear was filled with 12 per cent solution carbolic acid in glycerine and allowed to remain five minutes. The ear was then dried as before and aristol used with powder blower. Three treatments sufficed for a cure.

Case II, D. H., white man, age 50. Had been troubled with his ears itching for ten months and some diminution of hearing. He had used various remedies, but got most relief from syringing the ears with warm water. But this only relieved for an hour or two. At times the itching was almost unbearable. An inspection revealed a brownish black lining on the drum and inner half of the canal. On syringing I could wash out small pieces of membrane with the mold growth on it. I used same treatment as in Case I, but it required over twenty treatments on alternate days before all the growth was removed. In this case more or less itching and dryness of the canal remained; hearing much improved. For the itching I first used 2 per cent carbolated vaseline, but later, and more satisfactorily, resinol—a proprietary ointment. At first it had to be applied once or twice daily, but now, six months later, once weekly is sufficient.

### Two Cases of Amputation of Shoulder Joint.

By H. A. MINOR, M. D., MACON, MISS.

Reports of surgical operations do little good unless there are points made which throw light on procedures of this character, and thus enables the reader to meet similar emergencies, with increased knowledge and better chances for success. I report these two cases because I think the narration of my methods will so help.

Case I. E. T. B., white, 15 years old, in good health, accidentally shot himself with a breech loading shot gun loaded with small shot. He was several hundred yards from his home. The muzzle of the gun was very close to his person, for his shirt was set on fire by the flame. He ran homeward, climbing two wire fences, and when near the house fainted from loss of blood, fatigue and shock. He was seen by the servants and soon brought into the house. Dr. J. B. Featherston (my partner) and I were sent for. His home was three miles from town. When we reached him, we found him very pale and weak, pulse feeble. He was rational and quiet; he had lost a large amount of blood before fainting but none afterward. After consultation, we deemed it best to operate at once, for the hemorrhage was liable

to return at any moment, and there was no way to control the arteries by pressure, as will be seen further on. So sending for another physician, whose assistance we needed as anæsthetist, we made ready for amputation, using all the antiseptic and aseptic precautions that the emergency of the case permitted. These were not perfect because we could not cleanse properly the under part of the wound for fear of exciting hemorrhage. We put him in the Trendelenberg position, covered him with blankets, with hot water bottles, hot bricks, etc., under the blankets. We gave him strychnine freely before, during and for twenty-four hours after the operation. During the operation we gave him whisky hypodermatically, at frequent intervals. I operated, Dr. Featherston acting as first assistant, and Dr. Warren as an anæsthetist. Dr. F. held the wounded arm at right angles; the clothing was cut away; the wound and adjacent parts were carefully cleansed. The wound was a terrible one; the lead entered two inches above and just to the inner side of a line drawn from the shoulder joint to the axillary fold and made its exit above the posterior axillary fold. The arm was nearly severed from the body; the humerus was broken into many fragments. The brachial plexus, the brachial artery, and the muscles were all torn asunder. All the anatomical relations of parts to parts were destroyed. With a stroke of my scalpel I severed the small amount of skin and muscles by which the arm remained attached to the body. Any hemorrhage at all then would have proven fatal, so the first and main duty was ligation of the brachial artery. But where was it? There was before me a horrible mass of torn flesh, all looking alike. But the artery must be tied, and that without loss of blood; not only so, but it must be so tied that there should be no secondary hemorrhage. The radial pulse to the uninjured arm was weak; the face pale, even in the position he was in. The anæsthetic had to be given with great care, and the whisky and strychnine had to be injected liberally. (I gave no alcohol except by hypodermatic injection.) I selected a mass of flesh in which I was quite sure the artery was; I clasped this mass with a large and strong pair of forceps, and gave them to Dr. F. to hold, telling him to press firmly. I then, with scissors, cut across this mass below the forceps; and there was presented from the clean cut surface the open end of the artery. I put a hæmostat on it, then another

pair of forceps was placed above the first, embracing a smaller amount of flesh. Removing the first pair, I carefully dissected the artery up to the second pair. The conditions not being favorable, I put a third pair above the second. Removing the second I dissected the artery to the third; finding there the parts favorable for ligature.

I now tied the artery, taking care that there should be at least half an inch of it above my ligature free from branches, thus securing room in the artery for the blood clot, which was to become organized and occlude it. This being done I rapidly removed the disorganized flesh, with scissors and scapel, and trimmed the skin so as to secure flaps. I soon had a clean wound, all parts of which looked viable. I found the head of the humerus had not been fractured, nor the capsule of the shoulder joint torn. So holding the ragged fragments of the broken bone in the bits of a strong pair of bone forceps I sawed it off close to the insertion of the capsular ligament. The fragment thus sawed off was  $\frac{3}{4}$  of an inch long. I then brought the flaps together and sewed up the wound as usual. But the upper flap was composed of skin from over the deltoid that had been burned to the second degree by the burning shirt. This presented a danger from infection of the stump, should the burn suppurate. I then dressed the stump and burned surface with strictest antiseptic precautions. Either Dr. F. or myself watched this young man with great care and dressed the stump ourselves, preventing all suppuration until the wounds were nearly healed. After this, superficial suppuration occurred which for awhile delayed healing. He then made a rapid and perfect recovery.

I will state now what I neglected to state in its proper place—that several hours elapsed before I dared to take him from the operating table and the Trendelenburg position. When I did I placed him on a bed, the foot of which was elevated about two feet higher than the head. We watched by his bedside for several days, giving him stimulants, concentrated diet, etc. One of the best agencies used for sustaining him was rectal injections, of equal parts of very strong black coffee and expressed beef juice, every four hours, giving two ounces of each. A lemon squeezer was used to express the juice.

Case II. This was very like the first, yet different in



important particulars. Frank M., white, age 15 or 16 years, accidentally shot himself with a Winchester shotgun—the muzzle being pressed against the skin in front, about two inches above and a little to the inner side of the anterior axillary fold, the orifice of exit similarly situated as to the posterior axillary fold. Not only the load of shot, but all the blaze, smoke, wadding and the gases generated by the explosion were discharged into and through the wound. The arm remained hanging to the body by a small amount of skin and muscle. The neck and head of the humerus were broken into fragments. The damage done to the flesh was much greater than in the first case. The cellular tissue that bound muscle to muscle was torn, and the surfaces of the muscles thus exposed were discolored by smoke or scorched by flame. Drs. F. and W. assisted me—the former gave the anæsthetic, the latter acted as my assistant. There was less blood lost in this case and less shock, but the injury done was greater than in the first. I proceeded with this as with the first, tying the artery with the same care and precautions, then trimmed the torn tissues and the skin flaps, as in the former case. In this last I had to remove the head of the humerus, as the head was fractured and the sinovial sack torn. I found that I could not remove all the flesh that was singed, torn and burned, for if I did I must leave a great void. Besides within this scorched and smoked surface was much sound tissue.

After thought and consultation with my confreres I removed a little more of the least hopeful tissue. Then I spread the wound wide open, sprayed it freely with I to 4000 bichloride solution; then laid a drainage tube, fenestrated along the middle, along the bottom of the wound from front to rear. This tube was long enough to protrude beyond the dressings. Now, on this open wound I applied a number of layers of wet bichloride gauze. Holding these firmly together, I approximated the lips of the wound and held them together by adhesive strips and bandage.

Over all this I put an abundant dressing of dry gauze and aseptic cotton, then a bandage. I then instructed the nurse (an intelligent negro man) to inject, every six hours, an ounce of I to 4000 bichloride, into each end of the drainage tube, a hem-orstat being pinched upon the other end. By this means I kept the dressing within the wound wet. Between dressings

these ends were covered by gauze and a special bandage. These dressings were replaced by new ones every other day. After three such dressings I substituted Thiersch's solution for the bichloride. Then after three days more I used, instead of Thiersch's solution, boiled water, made the color of claret by the addition of tincture of iodine. My object in thus dressing the wound is apparent. I was calling to my assistance the mighty power of the "*vis medicatrix naturæ*," expecting it to remove all non-viable material, and leave me healthy tissue, while I kept off infection by these means.

At each dressing I sprayed the wound freely with boiled soft water, and every time a quantity of necrotic tissue was washed away. In ten or twelve days I had a clean and, to a surgeon's eye, a beautiful raw surface. I brought the lips together, used dry dressings and the wound healed without further trouble, and I discharged my patient well and hearty on the        day after the date of injury. I do not think he missed a meal during the time he was under treatment; was always cheerful and bright.

I was and am naturally very happy over the results in these two cases, and hope that this report will help some one else to achieve like happy results under similar circumstances.

### **The Treatment of Vesical Tumors.\***

By G. FRANK LYDSTOW, M. D.

*Professor of the Surgical Diseases of the Genito-Urinary Organs Syphilology, in the Medical Department of the State University of Illinois*

The treatment of tumors of the bladder necessarily varies according to the rapidity and location of the growth and the period at which the diagnosis is made. Where operation is refused or the diagnosis is doubtful, and in cases coming under observation late in the course of the disease, particularly in malignant affections, palliation is the only recourse.

PALLIATIVE METHODS.—The palliative treatment of tumors

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\* An abstract, for THE JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION, of a lecture on vesical tumors delivered at the Chicago College of Physicians and Surgeons. (The author's views of vesical tumors in general have been presented in full in his recent text book on Genito-Urinary and Sexual Diseases. F. A. Davis Company, Philadelphia.)

of the bladder consists of measures to relieve symptoms incidental to secondary conditions and allay pain. Analgesic measures are nearly always indicated in malignant vesical disease, and are sometimes necessary at an early period. In non-malignant tumors, however, pain is not a prominent symptom, as a rule, until the growth has attained considerable size—sufficient, at least, to produce pressure upon sensitive surrounding parts or the nervous structures traversing them. An exception must be made to this rule where the tumor occupies such a position that the vesical neck is encroached upon, producing frequent and painful micturition. A tumor of very small size may here give rise to such painful symptoms and such marked disturbance of urination that anodynes and antispasmodics become necessary at a very early period.

Cystitis arises sooner or later in the majority of cases of vesical tumor, its period of development depending largely upon the frequency and septic qualities of instrumental interference with the organ. In a general way, interference with bladder, short of radical operative measures, is to be avoided as long as possible in vesical tumors. When instrumental exploration becomes necessary extreme care should be taken not to infect the urinary tract. When infection occurs the misery of the patient is greatly increased. The measures for the treatment of cystitis indicated in tumors of the bladder are precisely similar to those employed in vesical inflammation under other circumstances.

Secondary involvement of the kidneys—pyelonephritis—may often be avoided by caution in the matter of vesical exploration; or, if infection of the bladder has already occurred, by careful antiseptic irrigation of the viscus combined with appropriate internal urinary antiseptics. Should, however, renal complications occur from extension of the infectious process upward along the ureter to the renal pelvis, and thence to the secretory structure of the kidney, the measures ordinarily employed for relieving renal strain by vicarious elimination through the medium of the skin and bowels are indicated, together with such local measures in the way of anodyne applications and hot fomentations over the regions of the kidneys as may be required. Dietetic management is as important here as under other conditions of renal disease, with due regard for the

extremely debilitating tendency of malignant vesical disease, which renders caution in the matter of dietetic restriction necessary.

Hemorrhage is a very important complication of neoplasms of the bladder. In general it does not require special treatment unless the hematuria is severe enough to be immediately threatening, or frequent enough to cause chronic anemia. In the lesser degrees of hematuria both internal and local measures of hemostasis are likely to be productive of more injury than the hemorrhage would be if let alone. The various internal and local remedies for urinary hemorrhage in general have already been presented in the chapter on hematuria.

In hematuria from vesical tumors, cystotomy and packing the bladder, or such operations as may be practicable for the radical removal of the source of hemorrhage, must be especially borne in mind. When the bladder is opened for the purpose of hemostasis the surgeon should be prepared to perform a radical operation if necessary.

**RADICAL TREATMENT.**—Where the diagnosis made early, cystotomy, for the purpose of exploration and, if practicable, removal of the neoplasm is indicated. There should be no delay when once the diagnosis is established, and whenever, on opening the bladder, the tumor is found to be accessible, it should be removed. Modern surgery has shown that it is perfectly feasible to remove practically the entire bladder in cases of vesical tumor, the ureters being transplanted into the rectum or sigmoid flexure. This class of surgery is certainly bold enough, and exemplifies the wonderful progress that surgery has made in recent years. There is a question in the author's mind, however, as to whether we are ever justified in performing such extensive operations in hopeless cases, when the result of the operation, even if the patient lives, is at best a condition of affairs that is quite as bad as the one for which the operation is performed. Complete extirpation of the bladder in malignant disease is never curative. It has been suggested as a means of preserving life and making the patient more comfortable. With cocaine and morphine at our command, however, this argument is not logical. The author does not wish to assume a dogmatic position on this point, as there are exceptions to all surgical rules, and surgical procedures must be modified accordingly, but, in a



general way, the foregoing statement is by no means too radical.

Tumors of the bladder may be attacked either suprapubically or perineally, or both, as required. In general, where one route alone is resorted to, suprapubic section is best. Suprapubic removal of tumors of the bladder is in no wise different from suprapubic section under other circumstances, save that more room is usually required than in other conditions. Extra room may be secured by the cross section of Trendelburg, with or without symphysiotomy. A useful method of cross section is to remove a part of the superior border of the pubes with the tendinous insertions of the recti muscles intact; a quadrangular flap can thus be lifted up in such a manner that, when the bony fragment is wired to the body of the bone at the conclusion of the operation, hernia is not likely to occur.

The operative procedures necessary, when the interior of the bladder is entered, vary with the size, nature and conformation of the tumor. Small pedunculated tumors are often readily twisted off. This is an excellent plan in simple growths, especially those fibro-adenomatous neoplasms situated about the vesical neck, which sometimes constitute the entire trouble in chronic prostatic disease. Where small pedunculated growths are met with, and there is a suspicion of malignancy, the tissue underlying the tumor at its base should be excised with the growth, the resulting wound being sutured where practicable. Care should be taken to remove a sufficient amount of vesical mucous membrane and submucous tissue to insure the entire removal of the growth, with due consideration for the vesical deformity incidental to the subsequent formation of calculus. Hemorrhage after operation may be controlled by packing the bladder, or, as just suggested, the actual cautery. In some instances packing the neck of the bladder about a firm perineal tube is all that is necessary. A perineal boutonniere and the insertion of the tube are best as a secondary feature of the suprapubic operation where the tumor is small and located at the vesical neck and hemorrhage is troublesome. Hot water is often effective in checking hemorrhage after the operation. Oozing or obstinate hematuria after the completion of the operation may often be controlled by the internal administration of turpentine emulsion.

The after-treatment of operations for the removal of vesical

tumors is the same as regards urinary antisepsis, both local and internal, as in other operations upon this portion of the genito-urinary tract.

Electric illumination of the bladder via the suprapubic wound in vesical explorations or operations is often exceedingly useful. Small portable lamps have been devised for illuminating the cavities of the body that are especially useful in the diagnosis and operative treatment of vesical tumors. These devices are a great convenience and when practicable should be at hand.

100 State street, Chicago.

## Correspondence.

DETROIT, MICH., Oct. 25, 1899.

Secretary Mississippi State Medical Association, Biloxi:

DEAR DOCTOR—Permit me to call the attention of your society to the movement desiring to attain the establishment of interstate reciprocity concerning the license to practice medicine.

Very satisfactory preliminary answers have been received by authorities of the vast majority of the states and territories.

Editorials on the subject, in connection with the action of our society, have been noticed in—

*The New York Medical Journal*, August 12 and October 21, 1899.

*The Physician and Surgeon*, Ann Arbor, July, 1899.

*The Journal of the American Medical Association*, September 20, 1899.

*The New York Medical Times*, September, 1899.

*The Virginia Medical Semi-Monthly* of October 13, 1899.

*The New York Medical Record* of October 14, 1899, contained a gratifying notice on the subject.

The movement has so far been indorsed by the State Medical Societies of Idaho, Utah and Vermont, and by the Detroit Medical and Library Association. The latter and the Utah State Medical Society appointed committees to assist our committee.

Our efforts met with approval also from other sources.

The Illinois State Board (*Journal of the American Medical Association*, October 14, 1899, page 990) already took a step forward along the line suggested.

We take the liberty to ask your society to indorse and to further the movement in any way the society thinks best.

Kindly accept in advance our thanks for your trouble.

Very respectfully yours,

E. AMBERG, M. D.,

No. 32 West Adams Avenue.

Sec'y of Committee.

## Editorial.

H. M. FOLKES, M. D., . . . . . BILOXI, MISSISSIPPI,

Editor and Business Manager.

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The above section was adopted in order to admit persons eligible to membership during vacation. Either of the above named officers will furnish, on application, the necessary card.

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Those intending to contribute papers in any of the sections will please send copy of same to chairman of section in which it is written so that those appointed to lead in discussion may have opportunity to prepare themselves along line written upon. This should reach the chairman not later than March 15, 1900. The names of those appointed to discuss the various papers will be announced later, as the chairmen make selections

It is said that imitation is the sincerest flattery, and in being so treated Messrs. Fairchild Bros. & Foster doubtless feel



highly complimented by the Chicago druggist, Edward Otto, who had been substituting other and inferior goods when their well-known product had been specified. But such compliments are not to be appreciated when they carry in their wake the grave evils which they always do, for substitute once and the same thing will be done again at the first opportunity. Federal Judge Kohlsaatt in the United States Circuit Court at Chicago has rendered final decree against said Otto, forever debarring him from using the name Essence of Pepsine in any preparation of his own manufacture. After a firm has spent years and great capital in building up a trade on an article which the law protects them in, all legitimate means should be used to prevent expropriation of article or name.

\* \* \*

There is no subject of greater interest than the question of the relations of mosquitoes to malaria. It is of enormous importance to the people of this state because its land values and the efficiency of its laborers are both depressed by the presence of malaria. To the scientist it is of great interest because it offers an explanation of many phenomena hitherto impossible of solution. Last year the German government sent a commission to Italy to investigate malaria. At the head of this commission was Professor Koch. Other members were Pfeiffer and Kossell. This commission worked at Milan, in northern Italy, and at Rome, in central Italy. In April of this year the commission returned to Italy, going first to Grossetto. In the meanwhile the English government had sent a commission charged with the same duties to the west coast of Africa. They operated at Sierra Leone. At the head of this commission was Donald Ross, of the East India service. The conclusions of the two bodies are in the main agreed. They have found—

(1) That a mosquito called *anopheles maculepennis* is the usual means of spreading the disease.

(2) That one of the *culex-culex pipiens* occasionally carried the disease.

(3) There is a possibility that a third insect was an occasional carrier.

(4) That tropical fever and Italian fever are due to one and the same parasites.



(5) That the tertian, quartan and aestivo autumnal parasites are probably modifications of the same organism, the modifications being a result of medication, season and immunity.

(6) That toward black water fever—malarial haemo-globinuria—quinine stood in something of an exologic relation.

(7) That in birds a proteosoma greatly resembling the malarial plasmodium was found.

(8) That in animals on the Campagna having Texas fever the tick was found. \*

Not all mosquitoes can carry malaria. The usual host is anopheles. This insect is described as having a black body and grey wings. Instead of sitting down flat its head is always raised at an angle of about  $60^{\circ}$ . Its larvae are small, have no air tubes and rest horizontally near the surface of the water. It moves rather slowly and with a backward jerk. The larvae of the ordinary harmless culex is larger, hangs head down and moves head first with greater rapidity. Anopheles usually spends two to three days as larvae and one day as pupa. It is found in roadside puddles and lives on green algae, to which it sticks rather closely. Koch holds that the organism is taken into the body of one insect and thus gets into the next man bitten by the mosquito. Ross says that the mosquito can travel only very short distances. Koch holds that patients with recurring malarias serve to carry the disease over from year to year; that if at the end of one season every man having the disease could be absolutely cured no malaria could be present the succeeding years, except some patient imported it. It is but proper to say that much of this work had been forecasted some time ago. When Theobald Smith, of the United States government, discovered the animal parasite in the blood of cows sick with Texas fever and found that the large brown tick served as an intermediate host he threw a side light on malaria. MacCallum, of Johns Hopkins, in describing anhaltridium in the crow paved some of the way. Grassi, of Italy, claims to have first demonstrated the mosquito as a host. In 1895 Sir Patrick Manson, of London, showed the writer specimens of mosquitoes containing malarial organisms. Prior to that time he and Donald Ross had observed it and written on it frequently. Several pages are devoted to the subject in Tropical Diseases by Manson, published in 1898. At that time it was Manson's opinion that the

flagellate body was the form provided by nature as the best adaptation to the surroundings; that they were taken into the mosquito's body; there they multiplied, as shown by the fact that more organisms were found in mosquitoes that had fed several hours before than in those that had just fed. The mosquitoes deposited eggs in water, the mother dying, the larvae ate the remains of the mother, including the parasites. These grew into mosquitoes, which carried the organisms to new patients. Begnami and Bastionelli, Grassi and Feletti held that the crescent was the form of the organism in its cycle outside the human body. Ross showed that the flagellate body could develop from the crescent. Koch showed that the crescent contained chromatin, thus showing that the organism was an active and not a degenerated form, as some perhaps, amongst whom were Marchiafava, had claimed. Maunaberg claimed that the crescent was due to the fusion of two ordinary organisms. The commissions found that kerosene killed the larvae very satisfactorily.

EVANS.

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## Abstracts and Extracts.

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THE PARALYSIS FOLLOWING GENERAL ANÆSTHESIA.—The paralysis produced by pressure during anæsthesia is preventable in every instance.

As a rule, it affects the upper extremities, and is occasioned by any of the following conditions:

1. Prolonged elevation and extension of the arms, allowing the head of the humerus to make pressure on the brachial plexus.
2. Metal clamps or tight straps over the shoulders or lower extremities.
3. Extension of the head toward one side, thus stretching the nerve trunks and rendering them still more susceptible to pressure.
4. Placing of the arm under the head and retaining it in the same position.
5. Permitting the arm or leg to hang over the edge of the table, thus making pressure upon some individual nerve.
6. The elbows of the anæsthetizer resting heavily in the clavicular region, pressing upon the brachial plexus.

The serious attention of surgeons should be directed to this class of cases, in view of the fact that such a paralysis may be prevented by the exercise of suitable precautions regarding the position of the patient (and the anæsthetizer) during anæsthesia. Owing to the rather common medical fallacy that a peripheral paralysis always is recovered from in a very short time, and is, therefore, of very little consequence, its real importance to the patient is either belittled or neglected. It should be borne in mind, however, that while some patients get well in a few days or weeks, in many others the paralysis may persist for months or years, and that occasionally it becomes permanent.

Its duration always depends upon the degree of injury to the nerve trunk and the recuperative capacity of the individual. —W. M. Luzynsky, in *New York Medical Record*.

\*\*\*

HAYEM'S ARTIFICIAL SERUM.—In malignant syphilis Auganeur advises hypodermic injections of twelve to fifteen ounces of the following solution :

Sodium chloride.....	7 parts.
Sodium phosphate.....	2 parts.
Water.....	1000 parts.

M. and inject whole amount twice a week.

—*New York Medical Journal*.

\*\*\*

PLAGUE.—Dr. W. J. Simpson (*British Medical Journal*, September 16th) says that two features are specially characteristic of plague: 1. The slow, irregular manner in which it acquires a hold over the locality into which it is imported and which may subsequently become the scene of an epidemic. 2. The obscure nature of the earlier cases. The first is apt to cause procrastination in vigorous measures; the second, loss of time through disputed diagnoses. There are two forms which often escape attention, the pneumonic and the ambulant. The pneumonic form lacks the pain, tenderness and swelling of the glands, which are the most prominent external signs of bubonic plague, and is very likely to be mistaken for bronchitis, broncho-pneumonia or pneumonia. There are the usual symptoms of febrile infectious diseases, premonitory and otherwise, with cough and watery sputum tinged with blood, which will be found to be almost a pure culture of plague bacillus. These cases rapidly

become worse, and commonly end fatally. They are also the most infectious. On the least suspicion, therefore, that plague may be present in a locality, the sputum of all pneumonic cases should be examined by spreading on a cover glass, drying, fixing and staining with gentian violet, methylene blue, carbol fuchsin or any ordinary aniline dye. A one-twelfth oil-immersion lens will show, if present, the characteristic coccobacilli or diplobacteria, more stained at the ends than in the center. If they are found, then it is imperative that the sputum be sent for confirmatory cultivation in a laboratory.

The ambulant form is particularly dangerous, being very mild, non-fatal, apparently sporadic, and commonly mistaken for some other disease—e. g., mumps, syphilis, malarial disease, scrofulous glandular affections, etc. These mild cases occur in almost every epidemic, and, owing to their escaping notice at first, disseminate infection before suspicion is aroused. There is some fever, pain, tenderness and enlargement of glands, weakness, a tongue with creamy white fur in the center and angry and red at the edges and tip, the eyes are congested, and the speech somewhat thick.

The bubonic plague is, of course, always accompanied by buboes appearing at the commencement of the illness in the groin, armpit and neck. There are certain symptoms common to all severe forms of plague. The countenance generally portrays in the early stages anxiety and distress, later resignation and apathy; the eyes are red and congested, and the patient has the appearance of being under the influence of a hypnotic, and yet unable to sleep, the eyes remaining wide open. Unless delirious, when the face is flushed and the physiognomy wild, the expression in advanced cases is apathetic or vacant, masking the approaching dissolution. The speech is peculiarly hesitating and broken, being more or less staccato in character, each syllable being pronounced by itself in a thick and husky tone like that of a drunken man, or only half the sentence may be spoken, the rest being forgotten. The tongue is early coated with a creamy white fur, except the tip and edges, which are clean and red; later it is dry, covered with a yellowish or whitish-brown fur, the tip and edges remaining red and irritable.

The characteristic physiognomy, speech and tongue, with the presence of a bubo, are unmistakable signs of plague. The



general symptoms of a typical case are shivering, high fever, nausea, vomiting, intense general or frontal headache, painful and tender bubo, staggering gait, suffused and congested eyes, anxious expression, coated tongue except on tip and edges, restlessness, with uncontrollable desire to wander aimlessly to some distant locality; dyspnoea, increasing disturbance of the nervous and circulatory systems manifesting itself in high and noisy delirium or coma, and in gradual and sudden failure of the heart's action. The pulse, which is quite soft and easily compressible at the onset, becomes intermittent and dicrotic and often difficult to count, and there is a tendency to collapse; the patient's extremities becoming cold and clammy. After the sixth or seventh day the patient's chances of recovery are much increased, and the temperature usually reaches the normal about the tenth day.—*N. Y. Medical Journal*.

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THE ROLE OF INSECTS, ARACHNIDS AND MYRIAPODS IN THE SPREAD OF DISEASES DUE TO PARASITES.—Dr. George H. F. Nuttall (*Journal of Tropical Medicine*, August), in a paper read before the British Medical Association, subdivided his subject as follows: *a*. The Role of Insects, etc., in the Spread of Bacterial Diseases.—1. Passive role. The domestic fly and allied species are chiefly to blame in this respect. Incapable of "biting," they may from the nature of the food they seek carry pathogenetic bacteria in their bodies or within their alimentary canal and deposit them on lesions of skin or mucous membrane, or on food.

It is possible, nay, probable, and in many cases scientifically proved, that anthrax, plague, cholera, typhoid fever, frambœsia, and Egyptian and "Florida" ophthalmia are so diffused.

2. Active role. Blood-sucking flies may play a part in propagating bacterial disease. Clinical writers report that cases of anthrax, septicæmia, pyæmia and erysipelas arise in certain instances from bites of flies; but experimental evidence is all against this statement. Experiments made by the writer on animals with plague, anthrax, mouse septicæmia and chicken cholera all gave negative results.

*b*. The Role of Insects, etc., in the Spread of Diseases Due to Animal Parasites.—Insects, etc., while serving as intermediary hosts, may play: 1st, a passive role, when they are

devoured by a host of the parasites they contain; 2d, an active role when, as in the case of the tick in Texas fever, and various mosquitoes in malarious affections of man and animals, they inoculate into a host by means of their proboscis; 3d, in filarial diseases an intermediary position is played by the mosquito, as it infects itself by sucking the blood of the definitive host.

Insects, etc., without serving as intermediary hosts, may play: 1st, a passive role, when they transport eggs of animal parasites and deposit them in food—e. g., eggs of *Tania solium*, *Trichocephalus*, *Ascaris lumbricoides*; 2d, an active role, by carrying the diseased animal from one animal to another and inoculating the parasite—e. g., Tsetse fly.

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**MALARIA AND MOSQUITOES.**—An interesting letter from Dr. Donald Ross, who is investigating the relations between the malaria parasite and the mosquito at Sierra Leone, is published in *The Times*, London. He says: "We have now practically finished our work here. We have found: (a) That local species of anopheles carry malaria; (b) that these species breed in a few stagnant puddles. The practical results to be derived from the facts which we have obtained will depend solely on the government and medical profession here. . . . Of course, we could kill most of the anopheles grubs here in a few hours with kerosene oil, and the thing will be done shortly. But this won't be enough. It is necessary that the operations be continued systematically, and that some of the more dangerous puddles be drained. . . . For many scientific reasons we have come to the conclusion that the truly malarial fever is caused here solely by the mosquito—probably entirely by the anopheles species. We estimate, then, that most of the malarial fever here can be got rid of at almost no cost except of a little energy on the part of the local authorities."—*The Hospital*.—*New York Medical Record*.

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**THE SUBJECT IN A NUTSHELL.**—Dr. C. E. Nammack summed up the subject as follows: (1) Consumption is a curable disease; (2) our best hope of cure is by increasing the resistance of the individual affected rather than by endeavoring to destroy the tubercle bacilli; (3) good air and food will increase this

resistance; (4) the state has or should have an abundance of good air and good food to extend to its poor who are unable to purchase or obtain these commodities.—*N. Y. Medical Record*.

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1. The commonest channel of infection with tuberculosis in childhood is through the lung.

2. Infection through the intestine is less common in infancy than in later childhood.

3. Milk, therefore, is not the usual source of tuberculosis in infancy, perhaps owing to the precautions taken in boiling, sterilizing, etc.

4. Inhalation is much the commonest mode of infection in the tuberculosis of childhood, and especially in infancy.

5. The overcrowding of the poorer population in the large towns is probably responsible for much of the tuberculosis of childhood, and prophylaxis must be directed to the prevention of this overcrowding the improvement of ventilation, and the inculcation of the extreme importance of fresh air during the earliest years of life.—*Still, in Pediatrics*.

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It is safe to assume that the average relative humidity in dwellings and offices, during that portion of the year which requires artificial heating, is about 30 per cent., or about 42 per cent. less than the average outside humidity and drier than the driest climate known.

The evaporative power of the air at a relative humidity of 30 per cent. is very great, and when the tissues and delicate membranes of the respiratory tract are subjected to this drying process a corresponding increase of work is placed upon the mucous glands in order to keep the membranes in proper physiological condition, so that Nature, in her effort to compensate for the lack of moisture in the air, is obliged to increase the functional activity of the glands, and this increase of activity and the frequent unnatural stimulation, induced by the changing conditions of humidity from the moisture-laden air outside to the arid atmosphere within our dwellings, finally results in an enlargement of the gland tissues, on the same principle that constant exercise increases the size of any part of the animal organism. Not only do the glands become enlarged, but the

membrane itself becomes thickened and harsh, and, sooner or later, the surface is prepared for the reception of the germs of disease which tend to develop under exposure to the constantly changing percentage of humidity.—W. M. Wilson, in *The Sanitarian*.

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## Therapeutic And Other Hints.

Heredity, sepsis, shock and anxiety are the usual causes of puerperal insanity, with the causative factor most frequently lodged in the first two.—Brush, in *American Medical Quarterly*.

The following practical suggestions by William Murrell are worth repeating:

1. The value of small doses of tincture of aconite, frequently repeated, in the treatment of amygdilitis and in the initial stage of febrile diseases.

2. The value of painting the chest and back with liquor iodi fortis—diluted if necessary with an equal quantity of the tincture—in all cases attended with cough.

3. The value of a pill of exsiccated ferrous sulphate in conjunction with the administration of purgatives in the treatment of anemia.

4. The value of grain doses of gray powder with an equal quantity of Dover's powder, from three to six times a day, in the treatment of syphilis.

5. The value of large doses of the iodids in the treatment of tertiary syphilis.

6. The value of large doses of bromid of potassium in the treatment of the "heats and flushes" and other symptoms from which women suffer about the time of the menopause.

7. The value of large doses of quinin in the treatment of supraorbital neuralgia, in the periodical febrile disturbances from which old malarial patients suffer.

8. The value of five grains of butyl-chloral hydrate with one two-hundredths of a grain of gelsemin in neuralgia of the fifth nerve.

9. The value of small doses of perchlorid of mercury in the treatment of infantile diarrhea when the stools are green, slimy and offensive.



10. The value of sulphid of calcium, in doses of a tenth of a grain, in the treatment of boils, carbuncles and abscesses.

11. The value of nitroglycerin and nitrite of amyl in the treatment of angina pectoris and allied conditions.

12. The value of alcohol in the treatment of fevers.

13. The value of flying blisters in typhoidal conditions.

To the above important tips we would add the following:

1. The value of small doses of arsenic in paroxysmal coryza of children; Fowler's solution in doses of one or two drops on an empty stomach in vomiting of drunkards; of arsenic in gastralgia, chronic ulcer of the stomach, chronic scaly skin diseases, as a respiratory and circulatory stimulant for the aged, in dysmenorrhea frequently noticed in women with a tendency to asthma or subject to chronic diseases of the skin, in pulmonary phthisis characterized by excessive expectoration and a slow degenerative process, and in albuminuria dependent on imperfect digestion of albuminous substances.

2. The value of a dose of castor oil in allaying the colicky pains of an infant, although it may not produce a movement of the bowels. The value of the remedy as a galactagogue.

3. The value of potassium bicarbonate in doses of 1-100 grain every hour or two, in aphonia and hoarseness due to excessive action of the vocal cords or resulting from an acute cold.

4. The value of potassium chlorate, one grain, and tincture of chlorid of iron, ten minims, every two hours in the treatment of ptialism.

5. The value of hypodermic injections of a solution of camphor in ether as a rapid and powerful heart stimulant.

6. The value of oil of eucalyptus as a gastro-intestinal and genito-urinary antiseptic.

7. The value of small doses of corrosive chlorid of mercury (1-100 grain or less in marasmus); of small doses (1-60 to 1-40 grain) in chronic diarrhea.

8. The value of sipping water as hot as can be swallowed to stimulate the heart.

9. The value of opium in cardiac asthma, as a vasodilator, given in conjunction with digitalis in senile hearts.

10. The value of 3 to 5 per cent. solution of acetic acid as a disinfectant and antiseptic in obstetric practice.—*Journal of the American Medical Association.*

## Reports of Societies.

### Proceedings of the Memphis Medical Society--Regular Meeting, November 7, 1899.

*As appearing in The Memphis Lancet for December.*

The president, Dr. B. F. Turner, in the chair.

The meeting was a joint meeting of pharmacists and physicians for the purpose of discussing matters of common interest. Present were Drs. Turner, Alfred Moore, Ellett, E. D. Mitchell, Erskine, Barton, Farrington, Gardner, Rudisill, Raymond, F. A. Jones, Neely, Reilly, Smythe, Heber Jones, R. H. Mitchell, Kane, Buford, Andrews, Harkness, Griswold, Beach, Goltman, Lane, Moore Moore, Crofford, Braun, Pineus, Webb, Krauss, Kennedy Jones, Taylor, Meyer and H. B. Sanford.

Pharmacists—Messrs. Ward, Treherne, Hammer, Ballard, Besthoff, Crego, Mayer, Lehman, Geiselmann, Renkert, Cole, Gillespie and others.

Visitors—Dr. Fountain, Messrs. McCown, Kahn and Paquin.

Dr. E. A. Neely read a paper on "A Plea for a More Thorough Study of Materia Medica."

Mr. F. W. Ward read a paper. He considered especially counter-prescribing and substitution, condemning both. In regard to the former, there was some difference of opinion as to what constituted it. The dispensing of a headache powder, laxative, throat tablet, etc., on request, was not the same as an attempt to diagnose and treat a case. Substitution permits of no excuse. The law requires the registration of the sale of poison, with date, amount, name and address of buyer. (This paper will be published in full in *The Lancet*.)

Mr. J. C. Treherne read an able paper on "Fraternal Relations." These can be maintained on the part of the pharmacist by his adhering strictly to the practice of pharmacy. Originally one, medicine and pharmacy soon separated, and in subsequent progress medicine has far outstripped her erstwhile companion, handicapped as she is by the inroads of patent and proprietary medicines, the development of the side line features of drug stores, and the presence of unqualified men in the profession. He condemned all forms of counter-prescribing, substitution,

and the presence of soda founts, cigar stands, etc., in pharmacies. They should be conducted by competent pharmacists, and solely for the dispensing of drugs and medicinal and surgical supplies.

Dr. William Krauss thinks that the prescription of the proprietary medicines by physicians has made such inroads on the druggists' income as to compel him to take up side lines. Another fault of physicians is their adherence to the old forms of weights and measures. The U. S. P. adopted the metric system twenty years ago, and the government services have used it for ten years.

Dr. Heber Jones thinks the essayists are too easy on the doctors. By prescribing proprietary remedies they compel the druggist to procure them, and the bulk of them remains dead stock. We should prescribe officinal preparations more.

Dr. F. D. Smythe blames physicians for the prescription of proprietary articles, and censures pharmacists for their lax observance of the poison law.

Dr. W. C. Griswold said that physicians often try to tell a patient the probable cost of a prescription, which they should not do unless they are posted as to the market price of drugs. He found pharmacy a most exacting profession. It requires sobriety, education, honesty, diplomacy and many other virtues.

Dr. E. C. Ellett said that druggists did not hesitate to put up a physician's favorite prescription and dispense it as Dr. So and So's tonic, eye wash, etc. This has happened with two of his prescriptions, and is certainly an injustice to the physician. He would like to know to what extent the doctors would support a pharmacist who would confine himself strictly to the practice of legitimate pharmacy.

Dr. Kennedy Jones condemned the practice of refilling prescriptions, and cited instances in which certain prescriptions were refilled wholesale and the sales assisted by the use of the physician's name; He thought the physicians were primarily to blame for these abuses, since the prescription of officinal preparations only would permit the druggist to make a decent living without these practices, and at the same time be no more of an expense to the patient.

Mr. Sidney Besthoff pleaded guilty to selling soda water, cigars and candy, and said he was compelled to do it by reason

of the inroads of proprietary medicines on legitimate pharmacy. Often when a druggist advises a person to take a physician's instead of his advice he will go to another drug store and get what he wants.

Dr. J. H. Reilly thinks the patronage extended by physicians to proprietary articles is the root of the evil. He blames medical journals for aiding in increasing their sales by publishing their advertisements.

Mr. Crego asked the difference between a proprietary and a patent medicine.

Dr. Ellett said that medical journals were supported in two ways—either they were published by a publishing house to advertise their books (medical) or were supported by the advertisements, which are largely of proprietary articles. In but few instances does the subscription price pay for the publishing of a journal. A patent medicine is a secret medicine, and usually is advertised to the laity direct; a proprietary medicine is of known formula, but is distinguished by a trade (copyrighted) name.

Dr. M. Goltman reminded Dr. Ellett of a case of nephritis with refinitis which they saw together, which had been treated by a druggist for four months. He would surely favor anyone who would practice legitimate pharmacy.

Dr. Krauss does not think the refilling of prescriptions is much abused, nor can it be prevented.

Dr. G. G. Buford said that recent decisions hold that the prescription is the property of the patient, and cannot be kept from him if he wants it to take elsewhere for subsequent filling. Druggists should not countenance refilling, however.

Mr. Besthoff said that the prescription blank might contain the words, "Do not refill."

Dr. Neely said that it was an imposition for doctors to accept and use prescription blanks paid for by druggists, and they should stop using proprietary remedies.

Mr. Treherne said that the druggist was paid not only for the medicine, but, like the doctor, for his skill and knowledge.

Dr. Neely presented the following resolution:

Resolved, That it is the sense of the Memphis Medical Society that the prescription of proprietary medicines by physicians is to be condemned.

Carried.



On motion of Dr. Taylor, a vote of thanks to Messrs. Ward and Treherne for their papers, and to the other druggists for their attendance, was put and carried.

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## Medical News and Miscellany.

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Contributors to this journal can secure reprints of their articles, in pamphlet form, at very low rates, by addressing The Biloxi Herald, Biloxi, Miss.

Dr. G. H. Thompson of St. Louis (*American Journal of Surgery and Gynecology*, September, 1899) reports a case of neglected lacerated cervix with extensive granulating surfaces around the os uteri, in which the following treatment proved successful. After giving a vaginal douche he carefully washed out the uterine cavity, and taking a strip of plain aseptic gauze sprinkled it with euophen powder and introduced it into the uterus, cutting off the end which protruded from the os. The granulating surfaces of the laceration were then carefully dusted with the same powder by means of an ordinary powder-blow, and the vagina was packed with the same improvised euophen gauze and absorbent cotton. The daily repetition of of these dressings healed the laceration in about three weeks; the endometritis lasted a little longer, but quite speedily got well without the necessity of curettage or a trachelorrhaphy. The author's subsequent experience with euophen convinced him that it was fully equal to iodoform in local therapeutic power, and he now uses it exclusively in his gynecological work whenever an antiseptic or drying powder it needed, especially in these troublesome inflammatory conditions which constitute so large a proportion of the clientele of the average gynecologist.

From *Gazette Medicale de Paris*, we learn that there were registered twelve new cases and four deaths from plague at Operte for week ending November 11. It also tells us that during the month of October there were at Operte 113 cases

and 12 deaths of the disease, and since the beginning of the epidemic there have been 210 cases and 72 deaths. Dr. Gomez Silva declares the disease now prevailing in Oporto as endemic and not epidemic.

FOR SALE—A Yaggy's Anatomical Chart. Apply to Mrs. W. P. McMillan, Biloxi, Miss.

The Southern Surgical and Gynecological Association meets in New Orleans on December 5, 6, and 7. Members of the medical profession cordially invited. Dr. Joseph Taber Johnson of Washington is president and Dr. W. E. B. Davis of Birmingham, secretary. Many splendid papers are on the program from the leaders of the profession in the South and the meeting gives promise of being one of the most successful in the history of the organization. Meeting called to order at 9:30 a. m. at the St. Charles hotel, where the session will be held.

URIC DIATHESIS.—Gave to a man with frequency of micturition, pain in back, and bloating of stomach and bowels; with rheumatic pains in limbs; sleepless and nervous; with full feeling and eructations after meals, Lithiated Hydrangea (Lambert's), in doses of two teaspoonfuls after meals and the following:

R	Potassi bromidi	3 iij
	Extr. cas. sag. fi.	f 3-iss
	Vin. kola	f $\frac{3}{4}$ ij
	Tinct. cinchon. co. q. s. ft.	f $\frac{3}{4}$ iv. Misce.

Signa. One teaspoonful, in water, before meals, and two teaspoonfuls before retiring.

He improved as if by magic; bloating, full feeling, eructations and all pain disappeared; sleeps well, and there is no undue frequency of micturition.

CHARLES H. SPRINGER, M. D. Cleveland, Ohio.

Dr. R. L. Turner of Meridian has been elected surgeon of the Second Mississippi National Guard and Dr. F. M. Sexton of Hazelhurst was elected surgeon, and Dr. H. N. Street of Gloster assistant surgeon of the first regiment.

The Thirteenth International Medical congress meets in Paris August 2-9, under presidency of M. Lannelongue. The congress is divided into five sections as follows: Biological sciences, medical sciences, surgical sciences, obstetrics and gynecology, and public medicine. Prof. Wm. Osler is chairman of the American National Committee and Dr. Henry Barton Jacobs is secretary. To the latter any doctor of medicine desiring to secure membership should send five dollars and a visiting card appended to a written request for membership. Those desiring to contribute papers should forward the title and a resume before May 1, 1900, to Dr. Jacobs who will forward it to the chairman of section under which it may come. Papers are limited to fifteen minutes. The French minister of commerce, industry, postoffices and telegraphs has had published a series of rules and regulations bearing upon the congress, the gist of which is outlined above.

THE NEW ORLEANS POLYCLINIC THIRTEENTH ANNUAL SESSION OPENS NOVEMBER 20, 1899, CLOSES MAY 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, La. mar1900

SANMETTO IN ANEMIC UNDEVELOPED YOUNG WOMEN.—I have used Sanmetto with profit in a case of a young woman who was troubled with a very irritable bladder and urethra, caused from an excess of uric acid crystals in the urine. The Sanmetto accomplished what I did not expect. The mammae had never developed very much, nor the chest and shoulders. She was also quite anemic. I gave her a bottle of Sanmetto with no apparent improvement except toward the last she felt a little more vitality. I then procured another bottle at the drug store here and gave her about half of it. There is now marked improvement in her general health, the mammae are about double the former size; her shoulders and neck are becoming very much more plump, and her chest is so much broader that she can scarcely wear the clothing worn before. She is looking very much better. But nothing seems to dissolve the uric acid crystals as yet.

F. E. DOANE, M. D., Kansas City.

WINTER COUGHS—GRIPPAL NEUROSES.—That codeine had an especially beneficial effect in cases of nervous cough, and that it was capable of controlling excessive coughing in various lung affections, was noted before its true physiological action was understood. Later it was clear that its power as a nerve calmative was due, as Bartholow says, to its special action on the pneumogastric nerve. Codeine stands apart from the rest of its group, in that it does not arrest secretion in the respiratory and intestinal tract.

Some of the coal tar products are safe, while others are very dangerous. Antikamnia has stood the test of exhaustive trial both in clinical and regular practice and has been proven free from the usual untoward after-effects which accompany, characterize and distinguish all other preparations of this class. Therefore antikamnia and codeine tablets afford a very desirable mode of exhibiting these two valuable drugs.

Drs. Tackett and Turner of Meridian have returned from a most profitable and interesting course at the New York Polyclinic.



# The Journal

.....of the.....

## Mississippi State Medical Association.

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### Original Articles.

#### Sanitation and Isolation as a Means of Prevention and Eradication of Yellow Fever. \*

By DR. J. A. TABOR, SCRANTON, MISS.

Yellow fever is recognized by the public at large as the most dreaded disease which visits our Gulf coast states. It keeps capital away, drives commerce from our door and keeps immigration at a minimum—thereby leaving millions of acres of fertile land lying idle, which if cultivated would make of this one of the most prosperous portions of the Union. As the prosperity of every community depends largely upon its high standard of health, therefore it becomes the duty of the profession to exert all its power and influence in not only keeping out this dreaded scourge, but to properly control and promptly eradicate same when once it gains entrance to our shores, and thereby prove to the outside world that people do not jeopardize their lives by casting their lot amongst us.

Quarantine and the laws governing same have been ably

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\* Read before Gulf Coast Medical and Surgical Society, at Pass Christian, November, 1899.

discussed by all of our ablest authorities, and as they have covered the entire ground we will pass it by and take up sanitation and isolation, as modes of preventing spread of the disease, and its eradication.

Though the profession at large now consider yellow fever a germ disease, as also that the bacillus icteroides discovered by Sanmurelli as the specific germ producing the disease, yet up to the present time we have no prophylaxis in the shape of an antitoxine which can be depended upon; therefore we are compelled to rely upon sanitation and isolation; measures which will not only act as such in yellow fever, but will at the same time diminish the mortality and virulence of other diseases, thereby raising the standard of health and make the populace less susceptible to yellow fever—all of which benefits the entire community and attracts people by its low death rate.

Bacteriology teaches us that each germ has its culture media, also that three conditions are essential for germ life, viz.: Heat, moisture and vitiated atmosphere. Dr. Murray says: "Mountains of filth will not produce the germs." At the same time does not the profession at large recognize the fact that filth affords a good habitat for the growth and propagation of germ life, as it brings about the above named conditions. Other epidemics of germ diseases have been arrested and in some instances aborted; why, then, should not the same rule apply to yellow fever? Deprive germs of conditions essential for their growth and they die. Furthermore, as each of these conditions depends more or less upon one another, by doing away with one of them (filth) we partially destroy the others, thereby bringing about the desired results. For example, yellow fever will not exist in a high and dry altitude, for it lacks moisture and vitiated atmosphere, minus which the germ cannot live.

Knowing by past experiences that yellow fever germs which have survived the winter months (in the United States) and cropped out the following spring or summer have given us sporadic cases and never have they produced the disease in an epidemic form. Again the question, why? They have become attenuated by lack of some of the conditions above referred to. On the other hand, they must of necessity have found sufficient of these conditions to sustain life, and in exerting their vitality

in reproduction have lost a proportionate amount of their virulence, each succeeding generation decreasing in vitality until they become extinct.

Why is yellow fever endemic in certain climes only? It is endemic in such climes as can give to its germs the conditions necessary for its propagation and in such climes only. In other words, in the latitude where yellow fever is endemic there are times when we find no manifestation of it, but the germ still exists, as it has never been totally eradicated, but continues to live in some media brought about by climatic influences and conditions, lying dormant until each time when these conditions are most favorable for their growth, increasing their vitality and virulence to such an extent that when they enter the human system they develop pathognomonic symptoms and we then recognize their presence. It is at this period that the germ has reached its maximum of virulency and malignancy, and it is then too late to hope that we can exterminate them by sanitation only. Though we can attenuate them to a degree by sanitation, thereby causing the disease to spread less rapidly; whereas to totally eradicate same we have to await such climatic influences as will destroy one or more of the conditions minus which the germs cannot live, and eventually die.

The next important measure as a preventive against the spread of yellow fever as well as other infectious diseases is isolation. Isolation not only to prevent those infected from coming in contact with those that are not immune, but at the same time to afford them the best environments and attention for handling of the disease. Such isolation hospitals should be located upon high, dry and well drained ground with the least possible shade. As sunlight and fresh air are the requisites, being nature's mode of killing germs, I would advocate the use of tents for this purpose. Tents being easily handled, can be moved from place to place as often as required to give the ground sufficient sunlight, and during the day giving the patients and tents sufficient fresh air by raising the walls of same, thereby not only benefiting the patient, but at the same time lessening the danger of infection and spread of the disease. It has been practically demonstrated that the spread of disease in any aggregation of men—i. e., armies—living in open air has been almost nil, as compared to same when

housed, supposedly, and I think correctly, that the germs become desiccated by exposure to sunlight and fresh air.

CONCLUSION.--Living in a latitude in which the importation of one or more cases of yellow fever may cause an epidemic at any time, our ports being in communication with ports infected more or less the year round, we live in a state of apprehension, for though guarded by a rigid quarantine, still there is a chance of its slipping through unnoticed, and when once in we have no other resource but sanitation and isolation. To make sanitation most efficacious we should not wait for this chance case to gain entrance before beginning same, but, on the contrary, we should strictly enforce sanitary measures during the winter months, when the danger of infection is at its minimum, and being about such a condition of affairs, from a sanitary point of view, as will enable us to continue it during the summer or hot months with the least amount of labor possible. When such a sanitary condition is reached it will be then, and only then, that the population of our Gulf coast states will be able to rest in security. Then quarantine will have become a secondary factor, for under such conditions any case which by chance should slip in would find unfavorable conditions for its existence, and by isolating it the danger of spreading would be reduced to a minimum, thereby benefiting the entire South and placing us on an equal footing to compete with other portions of the country.

### **If It Was Not Yellow Fever What Was It?**

DEAR DR. FOLKES:

Having had a case of fever out of the usual order in the onset of yellow fever, yet presenting so many symptoms of that disease, I think a report of it will be of interest to your readers.

E. B. White, male, age 21; a farmer by occupation; is a cigarette smoker; does not use alcoholic drinks regularly nor to excess.

He states that he was in New Orleans September 23, and took while returning from the city on that date about three tablespoonfuls of whisky.

On October 1, at Brookhaven, after eating fruit, he was



taken with vomiting and purging, attended by chilly feelings when the air would strike him. The vomiting ceased after one day, but he took calomel and had loose bowels for several days. He was up and down for the first few days, but later had fever, and on the 7th it was high and he was delirious. There was very little pain at any time, and it was greater in the knees than elsewhere; epistaxis from the 4th to the 7th inclusive.

He was brought from Brookhaven to his home at this place on the 8th, and I was sent for that afternoon. Being absent, my associate, Dr. J. M. Dampeer, saw him, and not suspecting anything out of the usual way, prescribed 30 grains cinchonidia to be taken the next morning.

Seeing him in the afternoon of the next day and finding a lack of correlation in pulse and temperature, he came for me. At this time, October 9 (the ninth day of his illness), the face was slightly congested and tinged, with sclerotics yellow and congested, epigastric tenderness and he was in a profuse sweat. Spat blood yesterday and today, but examination of gums revealed no bleeding, and its source was supposed to be the posterior nares, result of previous nose-bleeding. Record made by Dr. Dampeer: The previous afternoon—temperature 104, pulse 90; this afternoon—temperature 104½, pulse 80. Urine in sufficient quantity, containing albumin 10 per cent in volume.

I assumed charge of the case at this time, and we had the patient washed, redressed; bed cover, pillow cases and clothing boiled; the mattress put out in the sun and replaced by a new one covered with oil cloth; the changes and boiling to be carefully done twice a day, with the use of bichloride mercury solution. The family was immediately isolated. October 10, a. m., still sweating freely; temperature 102, pulse 71. Kidneys still acting well; urine decidedly albuminous, but less in volume. Some nausea, necessitating the withdrawal of food today.

Dr. Hunter was requested to send Dr. Haralson to investigate the case, and he came in the afternoon, bringing Dr. Carter, of the Marine Hospital service, with him. After a careful examination they stated that the disease was not yellow fever, and Dr. Haralson so reported it to Dr. Hunter. They also stated that they were governed in their diagnosis by the history of onset as given by the patient himself, but considered it of

sufficient importance to advise continuation of measures to prevent further infection in the event of a possible mistake on their part. At their examination the temperature was 100 1-5, pulse 72. Only a trace of albumin and no epigastric tenderness.

October 11, a. m.—Temperature 98 4-5, pulse 71.

October 11, p. m.—Temperature 98 4-5, pulse 72.

No albumin.

October 12, a. m.—Temperature 97 3-5, pulse 64.

October 12, p. m.—Temperature 98, pulse 68.

October 13, a. m.—Temperature 97 1-2, pulse 64.

Has sweated profusely since the 9th, but is now pleasantly moist.

October 13, p. m.—Temperature 98 1-2, pulse 70.

October 14, a. m.—Temperature 98, pulse 64.

October 14, p. m.—Temperature 98, pulse 57.

October 15, a. m.—Temperature 97 1-2, pulse 64.

October 15, p. m.—Temperature 98, pulse 58.

October 16, a. m.—Temperature 97 4-5, pulse 59.

October 16, p. m.—Temperature 97 1-2, pulse 58.

October 17, a. m.—Temperature 96 4-5, pulse 54.

October 17, p. m.—Temperature 97 4-5, pulse 52.

On the 18th he was sponged with bichlorid solution, dressed, placed in a chair and hauled into another room. Not having a house into which the family could be moved, the room occupied by him was the only one fumigated. The walls and floor of the open hall separating the sick from the others of the family were washed with bichlorid, and a general cleaning of the entire house was done, with sunning and airing of contents.

The case was not under observation, as you will notice, until the eighth day of his illness. The history up to that time is that related by the patient himself, who was away from home, and it may not be correct. He did not at any time appear to be in danger, notwithstanding the heavy sweat and the depression that lasted for several days.

It will be seen that Drs. Carter and Haralson saw him only as he began convalescence. If they had seen him before or subsequently I think their opinion would have been different, though Dr. Carter remarked that it would take another case in

the house to convince him that it was a case of yellow fever. We considered the history negative and formed our opinion from the clinical conditions before us, and could see very little in the way of a ready diagnosis of yellow fever. Of course Drs. Carter and Haralson have a knowledge in the diagnosis of this disease given them by experience that can be gained in no other way. I think the clinical history for two days prior to their visit justified the opinion formed by us, and that the subsequent history is pretty conclusive that it was a case of yellow fever, whether we have further proof by the infection of others or not. If the history of the onset be true there was not the active uninterrupted beginning that is seen in cases that run a typical course.

If it was not yellow fever what was it?

ROBERT E. JONES, M. D.

Crystal Springs, Miss., Nov. 9, 1899.

### **Gonorrhœal Infection of the Puerperal Woman—Report of a Case.**

BY M. J. LOWERY, MERIDIAN, MISS.

When Eve tempted man to eat the forbidden fruit she brought sin and misery on her sex; man in return infected woman with gonorrhœa. Some years since Noggerath made the assertion that gonorrhœa was never cured. He further says: "I have undertaken to show that the wife of every husband who at any time of his life before marriage had contracted a gonorrhœa is, with very few exceptions, affected with latent gonorrhœa, which, sooner or later, will show its existence in the wife in some form of disease. Out of one hundred wives who marry such men scarcely ten remain healthy. Of the ten who are spared we can positively assert or affirm the hidden mischief will sooner or later assert itself."

This is a very sweeping comment, but my observation of men whom I treated for gonorrhœa previous to their marriage, and in treating their wives, who had been perfect pictures of health, has confirmed to some extent the view expressed. They after marriage suffer untold agonies, or who die from infection during their first lying-in period, or who miscarry and drag

out a miserable existence, are invalids till operated on and cured. The trouble, in my opinion, is that a great many men have the infection when they marry, and are so anxious or can't postpone their marriage. I cannot agree that gonorrhœa is a lifetime disease where it is properly looked after, but the fault is as stated in my opinion.

I wish now to rehearse a case in order to show in what way a poor unsuspecting woman is made to suffer from the ills of man.

Mrs. C. B. previous to her marriage was in robust health; soon after her marriage became pregnant; she suffered with a vaginal discharge during her pregnancy. I was called to deliver her with forceps in consultation, after suffering some time; the position being in occipito-posterior, it was a very severe labor. She had no infection during this lying-in. I was called to see her again in December, 1897. She is now two months pregnant; has been suffering with pains in the ovarian regions, but very severe on the right side; the vaginal discharge is very profuse and offensive; her temperature is normal. Digital examination reveals a deep laceration of the cervix. On the 27th she had a miscarriage; the placenta and membranes came away with little trouble. She still suffers with the ovarian pains; every antiseptic precaution has been used in the management of her trouble. On the fourth day after the abortion she had a chill, with temperature of 104, pulse 120, abdomen tender and tympanitic. The uterus was at once irrigated with carbolized water, and curetted, saline purgative ordered, morphine hypodermically; quinine, five grains every two hours till fifteen grains are given. Next morning the temperature was normal, abdomen tender over the ovarian regions, distention reduced. Another chill during the day with the usual temperature. The same line of treatment was kept up, irrigations, etc., except the saline was given as needed. The case had several rigors, with a continuous fever, with sweats, hectic flush, for fourteen days; then an irregular fever, with profuse sweating, as nothing could be located digitally. This treatment was kept up night and morning for relief of pain; it took from a grain to one and a half grains in twenty-four hours to keep the patient easy—this hypodermically. Later on the vagina was packed with boro-glyceride tampons



three times a week, hot douches kept up in the vagina. The temperature and pulse gradually subsided till the twenty-fourth day, when the patient was clear of fever. With the decline of fever came a very profuse vaginal discharge.

The patient got up after awhile; the morphine was gradually omitted; was not free from pain, but had no fever; was pale, anemic, and suffered with profuse menstruation; still has pains in the sides; douches with creolin and various antiseptics, tonics. I advised an abdominal operation, as I believed there was a pyosalpinx, and that was her only relief. The patient wanted the laceration closed, as she had seen so many ladies relieved, as she thought, from uterine trouble from said operation. I declined, and thought the case had fallen in other hands till December, 1898, I was called to see her again. She was anxious for the laceration operation. I examined her, and found the uterus movable, and bled very freely on introduction of the sound. I agreed to close the rent in the cervix, with the understanding that she would have peritonitis at her risk. With every precaution as to antisepsis and asepsis the rent was closed, after curetting, a large plug of cicatricial tissue was removed, and brought together with silk worm gut ligatures. A warm carbolyzed douche was given every day. All went well till the tenth day, when she began to have pain and tenderness in the right ovarian region, with tenderness over the abdomen; temperature 100, pulse 120. The stitches were removed at once; there was good union; saline purgative and morphine, ice bag to the abdomen. Next morning thought I had aborted a peritonitis. The abdomen was flat; nothing could be located by the vagina. As the day came on, pain, with a rise of temperature a little higher than the previous day, pulse quicker, the vaginal discharge completely checked since the operation. The temperature, pulse, sweats, retention of urine, for ten or twelve days, the pain very severe. I was preparing to open the abdomen when I discovered what seemed to be a rectocele, and behind this posterior to the uterus considerable hardness, so much so that the uterus was wedged low down at the vulva. I will not weary you longer by describing the operation here in the vagina, but a large hypodermic needle was introduced in the mass; pus was found in abundance; it was incised, drained and irrigated; a drainage tube was kept in

the opening for ten days. The pain was relieved, temperature and sweats were checked; morphine was stopped at once. The pus was very offensive; even the patient herself complained of it. The patient is now well and hearty, has no pain, menstruates without pain and is normal.

REMARKS.—I believe this was a pyosalpinx of the right tube previous to the abortion. She had gonorrhœa, I think, for her husband had an old case of posterior chronic gonorrhœa, which would rekindle itself on sexual intercourse. I had treated him previous to his marriage; he had gone the rounds from doctor to doctor and got relief for awhile, had taken several dead shots from friends and druggists. During the acute attack of his wife I examined him, and he still had some discharge from the urethra, which would get worse at times. I would have had the discharge examined for gonococci, but with this history did not see the need of it.

I believe the woman would have gone along and dragged out a painful existence till some cause relighted the acute inflammation or blocked the drainage of the pyosalpinx through the uterus. The closure of the cervix set up sufficient inflammation in the frimbriated extremity of the tube to block the escape of pus into the uterus, which I am sure, previous to the closure of the cervix, escaped this way, and which nature was helping out, but not sufficient to give complete relief.

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### Placenta Previa.

By W. W. ROBERTSON, McCOMB CITY, MISS.

CAUSATION.—Development of Placenta, in Decidua Reflexa and Chorion Larva:

Kalthenback agrees with Hofmeir as to the pathogenesis of placenta previa. In placenta previa decidua reaches to the internal os; above this the reflexa is situated, into which the after-birth is developed.

It appears to him that insertion of the placenta over the os internum is explicable only in this manner.

The further demonstration can only be accomplished by preparation from early pregnancy. It is necessary to go back to the time when the chorion has not been differentiated into frondosum and larva. When the serotina is insufficient villi

persist in the reflexa. If the serotinal nutrition prove itself inadequate, at a later period new villi grow into the reflexa *placenta marginata*.

The cause of placenta previa and of this placental formation consists in the antecedent endometritis, which affects the nutrition of the ovum, and the frequent coincidence of placenta marginata with placenta previa seems altogether natural.

Partial Rotation of the Ovum in early pregnancy as a cause of Placenta Previa :

Edward Warren Swayer (Chicago) suggests partial rotation of the ovum in early pregnancy as a cause of placenta previa, upon the ground that marginal insertion of the cord is of relatively frequent occurrence in this anomaly. It is admitted that the ovum is not very firmly attached to the decidua in early pregnancy; hence it is not impossible that violence transmitted to the woman might succeed in partially detaching it, causing it to rotate on its axis and to lodge in the lower uterine segment. The detached chorionic villi undergo atrophy, while a new area of chorion comes into contact with the uterine wall and new villi develops. The placental site would thus be transferred from upper to a lower zone.

Recurrence of Placenta Previa :

Ernest Hugh Fitzpatrick describes a remarkable case of this kind, in five consecutive pregnancies, alleged to have been due to an unusually large uterine cavity. The first three labors were natural and easy, the fourth precipitous, and from the fifth to the ninth, inclusive, the placenta was abnormally situated. Out of these five pregnancies labor occurred in four when the child was viable; of these four viable children only one was saved, and that in the first case of placenta previa. The mother had profuse post-partum hemorrhages in two of the first four confinements and in two of the succeeding five, in which the placenta was abnormally situated. All of these examples of placenta previa were treated under the expectant plan.

W. Murry Leslie reports the case of a woman treated successfully twice in three years for complete placenta previa, under the plan advocated by Braxton Hicks—immediate action, version and extraction when necessary.

Natural History:

Challix records two cases of placenta previa.

Case 1.—Primipara, 21 years old; commencement of pregnancy, early September, 1888. Vertex presentation, slight hemorrhage before and during labor, which occurred June 17, 1889, and terminated spontaneously after a duration of seven hours. During labor the bleeding took place between contractions. Before complete dilation of the cervix, spontaneous rupture of the bag of waters at a point one inch removed from the placental edge. Instant and permanent arrest of hemorrhage; child (male) weighed  $9\frac{1}{2}$  pounds. In this case, in the words of Prinard, "the loss of water saved the woman from a loss of blood"—a clinical fact originally pointed out by Perjos.

The head doubtless plugged the cervix and aided in the prevention of further hemorrhage; but the arrest of placental detachment was due, in the first place, to the rupture of the bag of waters.

In case No. 2, Ipara, the bag of waters ruptured spontaneously at the placental edge in the beginning of labor, and the woman did not lose a drop of blood. According to Challix, the mechanism of the arrest of the bleeding in these two cases were as follows :

The premature rupture of the bag of waters suppressed the cause of hemorrhage since it prevented the further retraction of the lower uterine segment over the placenta, and the consequent further separation of the organ. After rupture of the amnion the change of position occurred between the foetal head and the amnion, instead of between the placenta or the intact ovum and the uterine wall. In other words, the uterine wall and the placenta could be retracted upward over the foetal head. The descent of the head after rupture of the amnion played the role, though a subordinate role, of an intra-cervical tampon.

Coulhoun records an example of the spontaneous termination at term of a case of placenta previa by the complete expulsion of the placenta in advance of the infant. The child presented by the vertex and was still-born. The loss of blood was trifling, and the mother, Ipara, made an excellent recovery.

#### Treatment :

The discussion of the subject of placenta previa before the obstetric section of the British Medical Association, at Leeds,



August, 1889, is especially noteworthy by reason of the eminence of the debaters and on account of the general soundness of doctrine.

Braxton Hicks read a carefully written essay, in the course of which he proposed the following rules, that are, in the main, in accord with most responsible opinion and practice of the profession the world over :

1. After diagnosis of placenta previa is made proceed as early as possible to terminate pregnancy.

2. When once we have commenced to act we are to remain by our patient.

3. If the os be fully expanded and placenta marginal we rupture the membranes and wait to see if the head is soon pushed by the pains into the os.

4. If there be any slowness or hesitation in this respect then employ forceps or version.

5. If the os be small and placenta more or less over it the placenta is to be carefully detached from around the os. If no further bleeding occur we may elect to wait an hour or two; but should the os not expand, and if dilating bags are at hand, the os may be dilated. If it appears the forceps can be admitted easily it may be used; but if not, version by combined external and internal method should be employed, and the os plugged by the leg or breech of the fœtus. After this is done the case may be left to nature, with gentle assistance, as in foot and breech cases.

6. If the os be smaller, and if we have neither forceps nor dilating bags, then combined version should be resorted to—leaving the rest to nature, gently assisted.

7. If, during any of the above manœuvres, sharp bleeding should come, it is best to turn by combined method in order to plug by breech.

8. Where the fœtus occurs before the end of the seventh month, version by combined method, no force following, is the best plan.

To these rules I may add: If, however, we employ a routine method in all cases, it will be found that the version by combined method, no force following, gives a result as good if not better than any. The value of Braxton Hicks' plan of version, and the surrender of the further course of the labor to

natural powers, except under special indications, is clearly recognized by Lomer, who brings out the point that the prognosis with reference to the foetus in placenta previa in general is unfavorable—entirely apart from the mode of treatment used—and that version offers as good, if not better, chances for the child than the other method of treatment.

A remarkable difference of opinion as regards treatment is evident.

The general plan of immediate interference (Braxton Hicks) has been adopted, while in some cases the expectant plan would be very practical. For example, I had a case to occur in my practice a few years ago, in which I was sure the child would be lost, but, to my great surprise, it was saved. The mother, aged 24, 1-para, first hemorrhage at about the seventh. Expectant treatment, notwithstanding several very alarming hemorrhages. I made a vaginal examination, and found the placental edge to occupy a part of the vagina (placenta previa lateralis), with the os soft and spongy and dilated to the extent of the size of a silver half dollar. She had shown blood stains for about one week previous to my examination. I explained to her the danger of her condition, and told her there was but little hope of saving the child, so I proceeded at once to force the placental edge back into the cavity of the womb as best I could; then she would have a pain and down it would come again with an alarming gush of blood. I called for some strong vinegar, with absorbant cotton; I made several tampons the size of a guinea egg, tying them together with a silk thread, soaked them well in vinegar, and now between the pains I again pushed the placenta up into the womb cavity and held it there until an assistant could hand me the ready tampons well saturated in the vinegar, and began to insert them one after the other until I had the vagina packed well; I then put a T bandage over the vulva and administered one-half grain morphia sulphate hypodermically, and instructed her to remain quiet and stay in bed one week or more. The third day after tamponing I returned and removed the same, using a vaginal wash of acid carbolie tr. iodine co. and glycerine in lukewarm water, washing away some blood clots. I then made an examination and found the os well contracted, but still soft and spongy, with considerable descent of womb; I again used the tampon

same as before; after three days I removed same, and ordered her to use the vaginal wash of acid carbolic, tr. of iodine and glycerine in water twice a day for a week or more. I also ordered her to use an abdominal supporter, which she did to a great advantage. She was up and around the house ten days from my first visit; had no more trouble until the time of confinement, which I dreaded to see, thinking that she might bleed to death. About two months from the time she had the above trouble she sent for me in a great haste. I arrived at 2 o'clock a. m.; found her to be having strong pains, with very little intermission; I hurriedly made an examination; found the placenta to be, as I thought, all down into the vagina, and the hemorrhage was very alarming. I ordered her in the knee-chest position, anointed my hand and arm well with hot carbolized lard; I grasped the placenta and shoved it back into the womb, the os being well dilated and soft; I then held the placenta against the uterine wall as best I could, and at the same time carried my hand up until I came in contact with a foot; just here I instructed her to turn on her back, and just as she began to turn a pain came, and by the time she got on her back I just brought the little fellow into the world still-born, with placenta following immediately. I soon resuscitated the baby, and she is now one of the beautiful little girls of our city. The mother made a rapid and uninterrupted recovery.

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### **A Model Vaccine Farm.**

The Extinction of Smallpox Well-Nigh Accomplished by Vaccine Virus.  
Some Startling Figures--Delicate, Precise and Pains'aking Methods of  
Producing and Testing the Lymph--Recent Improvements in Manu-  
facture--How Disease Germs are Excluded.

The vivid descriptions of smallpox epidemics in the pages of the great historians ought to teach us modern mortals what the loathsome disease must have meant in horror and dread to all mankind before the efficacy of vaccination became generally acknowledged.

Even more impressive than the classical pictures of the historians is the evidence presented by the statistics in which is crystallized the experience of entire nations. A calamitous smallpox epidemic raged in Germany during 1870-1, carrying

off 143,000 victims in a population of 50,000,000, and in 1874 a law was enacted making vaccination obligatory in the first year of life and revaccination also obligatory at the tenth year.

In consequence of this law smallpox has been so successfully stamped out in Germany that the annual loss of life from this disease is only 116.

Similar figures are afforded in every civilized country, and the lesson they teach is reinforced by the disastrous experience



FIG. 1.—“Ready to Invert.”—Aseptic Instrument and Dressing Case on the right.

of many careless communities which have temporarily neglected to perform systematic vaccination among the people. The city of Montreal can bear sorrowful witness, from its epidemic in 1885, and the English city of Gloucester, from its outbreak of smallpox in 1896, to the appalling evil which is likely to follow concessions made to anti-vaccination sentiment.

#### OPPONENTS OF VACCINATION.

The principal stock in trade of those who oppose vaccination is borrowed from the ancient and discarded method of



"arm to arm" inoculation, syphilis and possibly other diseases being thus communicated from child to child. In the vehement objections to animal vaccine the tubercular germ has been the great bugaboo. But our methods of selecting cattle and our use of glycerin to kill any possible germs in the vaccine exclude that danger perfectly.

But to these unfounded and childish grounds of opposition must be added others of more weight and truth. Not without

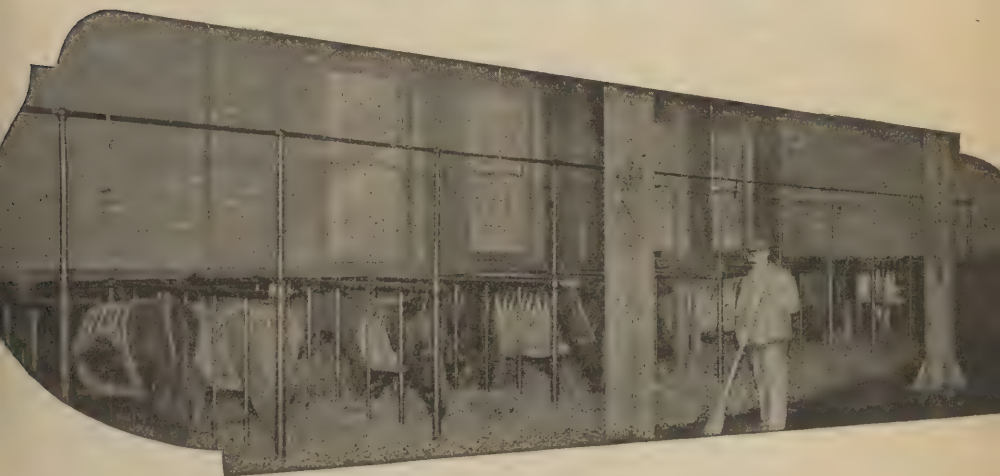


FIG 2 One Row of Inoculated Heifers in Propagating Room

reason have the anti-vaccinationists protested against the ulcerations, inflammations, abscesses and sloughings with which vaccinators have been only too familiar in the past, thanks to the general use of germ-infected "points." The cry of reprobation against these things is not to be silenced by calling people cranks when our best authorities and warmest advocates of vaccination tell us that the old-fashioned "points" fairly swarm with disease germs.

#### THE PROBLEM FAIRLY STATED.

When we decided to place vaccine on the market under our label we felt that at any cost our product must be the best product obtainable, otherwise we had better keep out of the vaccine business. And now we purpose to sketch very briefly and rapidly the means we use to preserve our vaccine from infection—measures of asepsis and antisepsis which could

hardly be made more minute and painstaking in a modern hospital where patients are prepared for dangerous operations.

#### THE ANIMAL.

We use only the healthy heifer about eighteen months old. The animal is first carefully examined by our veterinarian, Dr.

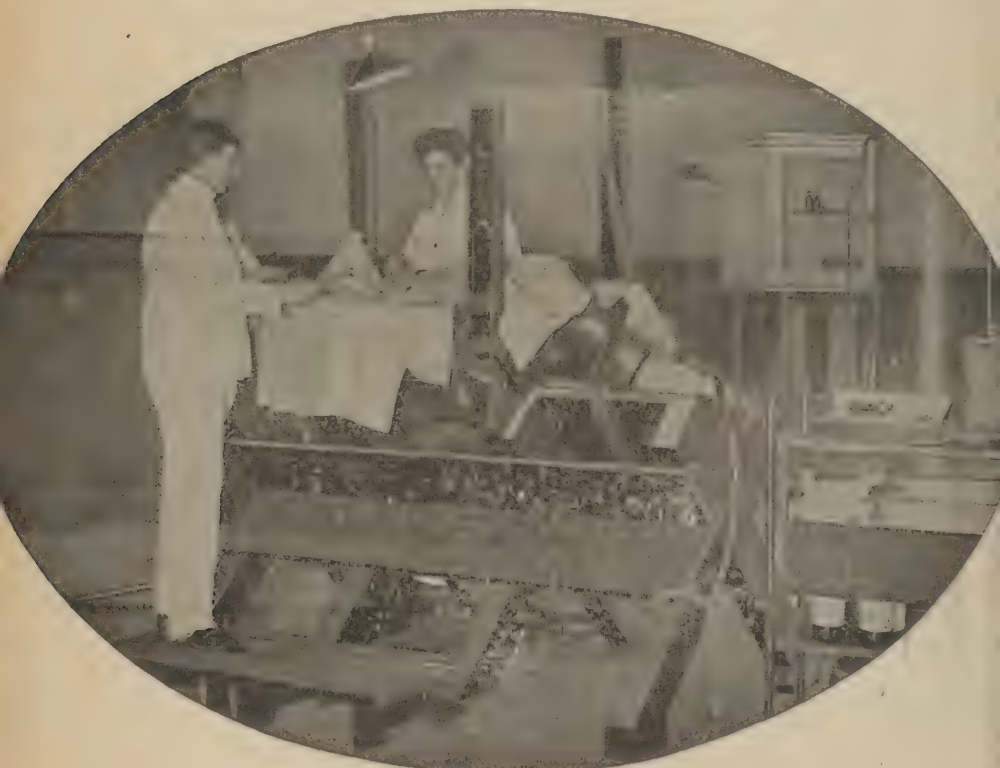


FIG. 3.—Collecting the Vaccine.

E. A. A. Grange (formerly Michigan State Veterinarian), for any evidence of disease, external or internal. A ringworm on a heifer is enough to condemn it. The tuberculin test is applied in every case, and any heifer which exhibits a suspicious rise of temperature is rejected.

#### INOCULATING THE HEIFERS.

When the animal is finally pronounced to be in perfect health it is scrubbed from head to foot and taken into the

operating room—a large, high chamber, with cement floor and varnished walls susceptible of ready cleansing and disinfection. Here, with the aid of a convenient apparatus (see Fig. 3), the heifer is placed on its back; the abdominal surface is thoroughly lathered, washed and shaved, and is then scrubbed once more with sterilized water; it is then washed thoroughly with a disinfectant solution; and after a final washing with sterilized water the abdomen is ready for

#### SCARIFICATION.

This is performed quickly with sterilized instruments. The “seed” vaccine is applied, rubbed in thoroughly, and permitted



FIG 4 Grinding Vaccine with Glycerine.”—Emulsifying Apparatus to the 1.5 ft.

to dry. The “field” of operation is then covered with an aseptic and impenetrable cement which effectually excludes germs. Over the cement we place a layer of absorbent cotton, and over the cotton a protective bandage.

(Other manufacturers of vaccine merely cleanse the abdominal surface. So far as we are aware, they do not use a disinfectant, nor do they cover the "field" with anything, simply allowing nature to form a scab.)

The heifers are now ready for the

#### PROPAGATING ROOM.

Figure 3 shows one row of iron stalls. Here the inoculated animals are kept for about five days. Men are on hand con-



FIG 5 Filling Vaccine into the Capillary Tubes

stantly to collect feces, etc., all excreta being removed from the room immediately.

#### COLLECTING THE VIRUS.

After about five days the heifer returns to the operating room. The hoofs are carefully cleaned, and the various cleansing operations described above as preliminaries to inoculation are now repeated.

The dressings are removed; the whole field of operation is cleansed with sterilized water and disinfectant solution; and the external scab is removed and destroyed.

The pulp of the vaccine vesicles with exuding serum is now carefully collected with sterilized spoon curettes and placed in sterilized containers filled with glycerin.



#### MANIPULATION OF THE LYMPH.

The vaccine is now brought to our biological laboratory, and is run through sterilized grinders until a homogeneous mixture is obtained. The requisite amount of diluent is added, and the mixture is shaken for several hours in a specially devised shaking apparatus in order to make a perfect emulsion.

#### SEARCHING SCRUPINITY OF THE FINISHED PRODUCT.

The vaccine is now examined bacteriologically and physiologically. Every single parcel of our vaccine is tested on heifers before we permit it to go out on the market under our label. And in the great majority of cases our vaccine is tested for activity on children as well.

If our test requirements are fulfilled it is filled by skilled operatives into sterilized tubes, in an aseptic room especially designed for the purpose. Each tube is examined to satisfy us that both ends are absolutely closed.

#### PROPER STORAGE OF VACCINE STOCK.

The sealed tubes are at once placed in a refrigerator and kept there until needed for orders. We aim to send out only strictly fresh vaccine, and our stock is changed every week. The proper storage of vaccine by our patrons is of the utmost importance. Vaccine is a most delicate and perishable product. Keep it in a cool, dark place (best of all, in a refrigerator), and by all means avoid exposing it for any length of time to a temperature above 70° F. During warm summer weather vaccine deteriorates very fast.

#### THE "SEED" VACCINE.

This is, of course, the corner-stone of our process; and we insure its activity by our stringently careful preservation and by frequent tests.

#### WHAT THE TRUE VACCINA VESICLE LOOKS LIKE.

Pray, remember that the so-called vesicle is the only reliable indication that the vaccine has "taken." There is absolutely no other proof for or against the vaccine. A hole in a man's arm half an inch deep—a scar two inches long—proves nothing (except that infection more or less serious has occurred), and neither one affords any guarantee against smallpox. On the other hand, Jenner himself declared that a full measure of

such protection is imparted by a single vesicle. The latter varies in size, but is usually umbilicated or depressed in the center. At one stage in its growth the vesicle is filled with pearly-gray matter. Often it is small and escapes observation. Pure vaccine ought to produce only a mild reaction. Violent symptoms, local or constitutional, point to infection, either from the vaccine itself or through careless exposure of the wounded arm after vaccination.—From advance sheets, *Therapeutic Notes*, kindly furnished by Parke, Davis & Co.

#### A Convenient Test for the Presence of Acetone in the Urine and Other Animal Fluids.

Oppenheimer (*Berliner Klinische Wochenschrift*, September 18, 1899,) recommends the following test for the detection of the presence of acetone in the urine and other body fluids.

First, a reagent of the following composition is prepared: Mercuric oxide 50, concentrated sulphuric acid 200, distilled water 1000. The sulphuric acid is first added to the water, and then the mercuric oxide, and the whole is permitted to stand for twenty-four hours, when it is filtered. To 3 c.c. of urine the reagent is added drop by drop. In the presence of albumin a turbidity results at once, but in the absence of albumin only after addition of considerable quantities of the reagent. If the precipitate remains on shaking, a few drops more of reagent are added, when the mixture is set aside for two or three minutes until a viscid sediment forms. Next filtration is practised, and repeated if necessary, until the filtrate is clear. Then about 2 c.c. of the reagent is added, and 3 or 4 c.c. of 30 per cent. sulphuric acid, and heat is applied for one or two minutes, over a flame or over boiling water. If a dense white precipitate appears in the course of two or three minutes it may be concluded that acetone is present. If the amount be small, less than 1 in 50,000, the turbidity may not occur for three or four minutes. The precipitate is soluble in an excess of hydrochloric acid. The test can be performed in from five to seven minutes, and it requires no special apparatus. It must, however, be performed exactly in the manner described. The test is applicable also for quantitative analysis.—*Medical Record*.

## Editorial.

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SEC. 7. Admission Cards may be issued by the officers of the Association with the obligation for the candidate's signature in the center and blank marginal spaces on the left and right margins for the signatures of the three members who recommend, and the three officers who admit the applicant to membership.

The above section was adopted in order to admit persons eligible to membership during vacation. Either of the above named officers will furnish, on application, the necessary card.

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Dermatology and Venereal Diseases--H. M. Folkess.....Biloxi

Those intending to contribute papers in any of the sections will please send copy of same to chairman of section in which it is written so that those appointed to lead in discussion may have opportunity to prepare themselves along line written upon. This should reach the chairman not later than March 15, 1900. The names of those appointed to discuss the various papers will be announced later, as the chairmen make selections.

### RURAL SANITATION.

Mississippi being an agricultural state and having within its confines a great number of small towns makes the subject

matter of this article of wide interest to us. Sanitation, being the most important part of preventive medicine, naturally falls to the lot of medical men, so it is that in all communities the doctor is looked upon as being the proper one to take the lead in all matters bearing upon this subject. Some of our medical schools have been wise enough in the past to have paid some little attention to the subject and have been fully repaid for their efforts in this direction by seeing their graduates take leading parts in health affairs in their respective communities. But we are now at a point when the people are daily becoming more enlightened, and as they thus broaden, narrow men in all walks of life have to step aside and give place to the properly trained.

So as a preliminary to further talk along these lines, we would urge upon the schools the necessity of broadening out on the question of hygiene and equip their pupils for the very best work along the "sanitary path."

Our State Board of Health will doubtless begin a course of hygienic institutes some time this year for the benefit of county health officers and such local health officials as may desire to participate. The introduction of this program will be of great help in stirring up the profession to sanitation in general and, we trust, to rural sanitation in particular.

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The country and the small towns really have no business or right, inherent or otherwise, to become the hotbeds of epidemic or catching diseases for the simple reason that such a condition of affairs can only originate through either ignorance or carelessness, and neither of these has the slightest excuse for existence. In this modern day and generation, when the germ theory has ceased to be a theory and has become the staid and settled fact, it is so apparently simple to account for the spread of a catching disease that we are prone to smile at the old-time idea of a visitation of God whenever a pestilence appeared, but I don't know that they were far off in the old days, because, if "cleanliness is akin to Godliness," then filth is akin to the devil, and who today doubts that all pestilences primarily take their start in filthy places forming the most favorable culture media for growth of germ life. Of course it was not God's fault that the pestilence appeared, but it was the devil's, because he and filth are synonymous.



At the next meeting of the association we sincerely trust that this important portion of medicine will be fully gone into and our knowledge along these lines added to by the good common sense of experienced officials and physicians.

Matters so important to our every-day life should be a part of the common school education, and no pupil should be permitted to graduate who fails to have at least an elementary knowledge of every-day sanitation.

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As a basis for all work of this kind we suggest that each school building have posted within it at some conspicuous place a motto as follows: "Fresh Air—Sunshine—Judicious Dietary—Adequate Exercise." With these four principles well grounded in the minds of school children it won't be many years before we will see a wonderfully improved mental and physical makeup in the person of our populace.

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#### AS TO HOSPITALS.

Mississippi has two. By some error of judgment both were located at the extreme western border of the state and near its central portion. Really we should have had three—one at the northern boundary, one at the southern and the other near the center. When I say at in in speaking of boundary it has reference to section and does not apply literally. So in the southern and northern parts of our commonwealth it has been customary to send our indigent sick and afflicted to either New Orleans or Memphis, as the case may have been.

We either should make some provision for maintaining hospitals in our vacant territory or else contribute to the support of our good friends in New Orleans and Memphis. It has been urged against this that the Louisiana people come to Natchez and Vicksburg to our hospitals. But this is an extremely poor argument when we stop to consider that where there are five coming to us from Louisiana there are at least fifteen going to New Orleans from our state. And again, the Natchez hospital is, or has been, the annual recipient of several hundred dollars from some of the adjacent Louisiana parishes, thus in large measure acting as a set-off against our claim that they are sending their people to us.

As a simple matter of justice we think it incumbent upon the incoming Legislature to aid the great Charity Hospital in New Orleans and the equally kind hospitals in Memphis to the furthest extent possible within our limited income.

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As for our own hospitals we await the annual reports of each before making further remarks other than to urge upon our legislative body the advisability of aiding and equipping them to the greatest degree commensurate with our ability.

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The newspapers have gotten another sweet morsel to roll under their tongues in the shape of the possible introduction of the plague from Santos.

It must be a source of great relief to the quarantine officials to know that the matter has been entirely and definitely settled by the militant editors. What the average editor of a country paper don't know about diseases is fully made up for by the curbstone doctor who does know and will at all times and places supply that information gratis.

We congratulate the health officials on being relieved of such a grievous burden of responsibility, and cordially promise to abuse the new editorial health corps just as soon as we catch our second breath. All hail to the great educators and moulders of public opinion!

In the meantime it were well that maritime health officials bear in mind that the plague is not any more mysterious than are other epidemic diseases and that complete disinfection means safety.

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THE NEW ORLEANS POLYCLINIC THIRTEENTH ANNUAL SESSION OPENS NOVEMBER 20, 1899, CLOSES MAY 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, La. mar1900

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Contributors to this journal can secure reprints of their articles, in pamphlet form, at very low rates, by addressing The Biloxi Herald, Biloxi, Miss.

## Abstracts and Extracts.

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DISCUSSION OF TYPHOID FEVER.—The Advance in Our Knowledge of Typhoid Fever.—Dr. Herman M. Biggs, of New York, opened the discussion with a consideration of the above topic. He said that the first great step in advance had been made through the writings of Shattuck and Flint in this country, and of Sir William Jenner in England. They had made possible the clinical differentiation of typhoid from typhus fever, and had marked the beginning of the first period—from 1850 to 1880. The second period had been ushered in in 1880 by Eberth's discovery of typhoid bacillus. The third period extended from that year to the present time; and in this had the greatest advances been made. We could no longer speak properly of typhoid fever as "enteric fever." In the majority of cases the typhoid bacilli made their way into the circulation at some stage of the disease, as shown by the rose-colored spots and by the demonstration of these organisms in the blood. A negative result from the Widal test could not be regarded as having much significance, but a positive reaction might be looked upon as almost conclusive proof of the presence of typhoid fever. Nearly all observers were agreed as to the nearly constant presence, in the early stages, of the diazo reaction of Ehrlich. It might be present between the third and seventh days of the disease—in other words, before the Widal reaction could be obtained, and prior to the time when the clinical symptoms were at all distinctive. Unfortunately it was frequently present also in general military tuberculosis, an affection frequently mistaken for typhoid fever. Regarding the use of preventive inoculations, the statement was made that, of two hundred persons at the Maidstone asylum, ninety-five had been inoculated, and none of these had contracted typhoid fever, whereas of one hundred who had refused this treatment nineteen had become ill with the disease. These inoculations had been made with attenuated and sterilized cultures. The injection was followed by swelling and tenderness at the site of the injection, and by a mild febrile reaction. By such treatment the blood acquired the agglutinative property present in persons suffering from typhoid fever.

**Bacteriology of Typhoid Fever.**—Dr. W. H. Park, of New York, treated of this topic. He said that the infective material was found chiefly in the discharges from the sick—in the faeces and urine principally. The length of time the bacilli remained in the faeces was very variable; sometimes it was only a few hours, but usually they did not disappear for several days. Typhoid bacilli could not usually be detected in water for more than fourteen days, and for this reason, chiefly, examinations of water for typhoid bacilli had almost no practical value. A rather unique case of infection from ice had recently been reported. Typhoid faeces had been thrown upon the ice of a certain lake in January, and the disease had developed the following July only among the families supplied with that ice. We were coming more and more to look upon insects as carriers of disease. One or two observers had claimed to have found typhoid bacilli in the bodies of insects, and an experiment, repeatedly performed in the laboratory, was the infection of culture media by foot-tracks of flies. Typhoid bacilli were not found in the urine until the third week, or possibly much later, yet after this time they appeared in pure culture and in enormous numbers. They would often persist in the urine for weeks or months. A case of cystitis, therefore, developing shortly after an attack of typhoid fever should be suspected at once of being the result of typhoid infection. Disinfection of the urine should always be insisted upon and the patients warned of the great need for carefully disinfecting their urine and faeces for a number of weeks after convalescence from typhoid fever. The bacilli would disappear more rapidly under the administration of urotropin, in doses of gr. x. three times a day.

**Clinical Diagnosis of Typhoid Fever.**—Dr. William Osler, of Baltimore, considered this phase. He said that the diagnosis must always be founded on circumstantial evidence, and yet there were few diseases in which the diagnosis was so certain. In some cases of very short duration and mild type the Widal reaction was most useful. In severe cases death might occur even before the Widal reaction could be present, and in such it was quite possible that even at the autopsy the characteristic intestinal lesions would not be found. A large proportion presented no intestinal symptoms, but of thirty-five recent cases in his practice only four had shown distinct abdominal symptoms.



The cerebrospinal, pulmonary and renal localizations of the typhoid poison were exceedingly liable to confuse and mislead the diagnostician. It should be remembered that under the most favorable circumstances death might occur before a correct diagnosis could be made. Afebrile typhoid, the speaker said, must be very rare, as he had never seen such a case. The occurrence of chills was, perhaps, the most frequent cause of an erroneous diagnosis. Chills were not infrequent in typhoid fever; they were so exceptionally the result of malaria that the latter should be the last thing thought of. The blood examination and the therapeutic test would decide. Dr. Osler said that he had been deeply impressed with the widespread belief among physicians that a diagnosis of malaria was often warranted, even in the face of a continued fever. This had been brought very forcibly to public notice by the action of the army surgeons in the late war in Cuba. Regarding the diagnosis of malaria, he would say to those practising in localities north of Mason and Dixon's line: (1) That intermittent fever which resists quinine was not of malarial origin; and (2) in these localities a continued fever was not due to malarial infection. He hoped that the pernicious term "typho-malarial" fever had been forever banished from our nomenclature. To the rural practitioner, without laboratory facilities, he would say: "Learn to suspect typhoid fever in every continued fever of six or seven days' duration, and especially if it proved resistant to quinine."

Some Interesting Cases Illustrative of Typhoid.—Dr. Edward G. Janeway, of New York, presented this contribution to the discussion. He said that it had been his lot to see three cases of tetany associated with typhoid fever. At times the mental state was so rapidly altered as to lead to the suspicion of insanity. There was often a marked suicidal tendency, which should lead the physician to take special precautions to prevent harm to the patient. The occurrence of herpes labialis in typhoid was so extremely rare that if it appeared he felt disposed to revise the diagnosis most carefully. A quick crop of petechiæ was prone to develop on the abdomen after the prolonged use of the ice-coil. He had known both appendicitis and sapremia from retained menses to simulate typhoid.

Statistics of Typhoid Fever at the Roosevelt Hospital for Ten Years.—Dr. William H. Thomson, of New York, presented

his statistics on typhoid fever for the period from September, 1889, to September, 1899. The total number was 368, 275 being males and 93 females. The total number of deaths was 25, or 6.8 per cent. Of those who died, 14, or 56 per cent., succumbed within a week after admission. Diarrhœa, developing after the first week in the hospital, was reported in only 8.7 per cent., and in the majority of these it was not very severe. This comparative rarity of diarrhœa he attributed, not to a change in the type of the disease, but to a change in diet, these patients not being fed on beef tea as was formerly the routine. Tympanites had been very common among the soldiers returned from Cuba, but excluding these cases, it was noted in only 11 per cent. In 321 cases there had been no delirium. Pneumonia had occurred in 7 per cent., and bronchitis in 8 per cent. Phlebitis had been present in 7 cases. Relapses had occurred in 55 cases, or 15 per cent. The treatment had consisted in the use of a purge of calomel and jalap every third night, up to the close of the second week. Equal parts of milk and lime-water was the exclusive diet until the end of the fourth week. He also used pepsin to aid the enfeebled digestion. Gr. x. each of pepsin and bismuth were given every three hours. As soon as the tip of the tongue became dry 10 to 20 drops of spirits of turpentine were given every three hours. To combat the general toxæmia, the speaker said, he knew of nothing equal to the general cool bath. It was employed as soon as the temperature reached 103° F., and active friction was kept up during the bath. He had found that there was less depression and a more prolonged antipyretic effect from the artificial Nauheim baths. Rectal irrigations with saline solution had been used with the object of increasing elimination.

*Typhoid Fever in the Massachusetts General Hospital During the Past Fifty Years.*—Dr. Reginald Fitz, of Boston, contributed this paper, which was largely a historical sketch. The mortality rate, by decades, was as follows: For 1839-49, 11.1 per cent.; 1849-59, 15 per cent.; 1859-69, 15.9 per cent.; 1869-79, 16.6 per cent.; 1879-89, 14.7 per cent.; 1889-99, 13.5 per cent. From 1839 to 1869 a liquid farinaceous diet was in vogue; from 1879 to 1889 it was chiefly liquid, beef tea and the like; from 1889 to 1899 milk had been the chief diet. The mortality rates for these three periods were 14.1 per cent., 16.6 per cent. and 14.6 per cent. respectively. Baths had been used since

1873, and since 1888 sponge and tub baths at a temperature of 65° F. had been frequently given. His conclusions were: (1) The treatment of typhoid fever does not now differ materially from the principles laid down in 1839; (2) the average mortality has not changed since the days of such active treatment as purgation and venesection; (3) intestinal hemorrhage, perforation and relapse are quite as frequent now as they were at any time; (4) a considerable variety of diet may be permitted, without detriment and with possible benefit to the patient.

Some Phases of Typhoid Fever as Seen in Bellevue Hospital.—Dr. A. A. Smith, of New York, made this contribution. The statistics were, for the most part, based on 87 cases, as from this number only could histories be obtained. Out of a total of 104 cases, there were 10 deaths, or 9.6 per cent. Chills were present in 57 per cent., diarrhoea in 57 per cent., typhoid eruption in 77 per cent. Of the 59 cases examined for the Widal and for the diazo reactions, the former was present in 82 per cent. and the latter in 74 per cent. Relapse occurred in 9 per cent.; all of these patients recovered. In the whole series there had been only one case of nephritis. In five cases the plasmodium malarie had been demonstrated during convalescence. The highest temperature recorded was 106.6° F., and that case proved fatal. One patient had died of intestinal perforation, as shown by autopsy, on the twenty-eighth day. Regarding diet, he was more than timid about the resumption of solid food, and made it a rule in his wards that it should not be given for eight or nine days after the temperature had permanently reached the normal.

Typhoid Fever in Children.—Dr. Abraham Jacobi, of New York, read this paper. He said that the absence of high temperature was worthy of note. General peritonitis was very uncommon. In certain epidemics he had found intestinal hemorrhage very frequent and severe. The food should be exclusively liquid until the temperature had been normal for ten days. A few drops of dilute hydrochloric acid, in a glass of water, made a useful and pleasant drink. The lips and tongue should be kept clean. When the tongue was dry and fissured, one or two applications should be made with a camel's-hair brush dipped in a one or two per cent. solution of nitrate of silver. The posture in bed should be changed from time to time to avoid hypostatic

congestion. The bowel should be irrigated frequently with water at 95° or 100° F. Internally, bismuth, sulphocarbolate of zinc, and salol were indicated. Stupor and coma should be combated by cold affusions while the body was immersed in water at 95° F. Antipyrin was perhaps the safest of the antipyretic drugs, but baths were better because of their stimulating action on the nervous system.

The Local, Non-Surgical Treatment of the Intestinal Tract in Typhoid Fever.—Dr. De Lancey Rochester, of Buffalo, presented this paper. He called attention to the importance of cleansing the mouth; if this was done sordes would be unknown. There was no evidence to prove the potency of remedies designed to destroy the specific bacilli. He strongly favored the use of calomel, at intervals of four to six days, in doses sufficient to produce from two to four stools daily. Systematically repeated irrigations of the colon were most beneficial.

Treatment of Perforation of the Bowel in Typhoid Fever.—Dr. W. W. Keen, of Philadelphia, contributed this paper. He stated that from 1884 to 1898 eighty-three cases had been operated on, with a resultant recovery rate of 19.3 per cent. From the beginning of last year up to the present time there had been sixty-seven additional cases operated on with a recovery of 26.9 per cent. He favored operating on practically every case of perforation unless the general condition was such as to make the case evidently hopeless. No age was a barrier, though it considerably influenced the recovery rate. Under fifteen years the percentage of recoveries was 50; from fifteen to twenty-five years it was 8.1 per cent.; from twenty to thirty-five years it was 25.6 per cent., and over thirty-five years it was 28.5 per cent. The best time for operation was not during the immediate primary shock, but in the second twelve hours after perforation, all things being considered. The operation should, of course, be done as soon as possible after perforation, but no prudent surgeon would operate during profound shock. During the first eight hours the chances for recovery were one-third of those which obtained during the remainder of the first twenty-four hours. The most important advance in technique was the substitution of local cocaine anesthesia for a general anæsthetic. This had been first proposed by Cushing. The perforation, when found, should be sutured without paring, Halsted's



mattress suture being used. Drainage would usually be required; though it was not improbable that better results might ensue from filling the abdominal cavity with salt solution and closing the wound.

Eye Complications in Typhoid Fever.—Dr. A. T. Hubbell, of Buffalo, made a few remarks on this subject. He said that catarrhal conjunctivitis and lacerations of the cornea were especially common complications of typhoid fever. The other principal eye complications were: retinal hemorrhages, accumulations of pus in the anterior chamber, suppuration of the deeper structures, iritis, choroiditis, opacities of the vitreous humor, opacity of the crystalline lens, neuritis and optic-nerve atrophy, embolism of the central retinal artery, orbital cellulitis, thrombosis of the orbital vessels and paralysis of the extra and intra-ocular muscles. Fortunately all of these complications were rare, and were easily diagnosticated.—*Medical Record*.

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UNUSUAL COMPLICATIONS OF TYPHOID FEVER.—Dr. E. B. Montgomery, Quincy, Ill., presented a paper of considerable interest on "Typhoid Fever in Very Young Children, with a Report of Three Cases with Unusual Complications," which was read before the Mississippi Valley Medical Association, October 4-6, 1899.

After an extensive review of the literature pertaining to typhoid fever as occurring in infancy and childhood, including a mention of Dr. Stowell's tabulation of eighty-five cases under three years of age, the author detailed three cases—two of which happened in his own practice.

In the first, an infant of nine months, the meningeal symptoms were so marked as, for the time, to make a diagnosis of tubercular meningitis highly probable. These symptoms began to subside about the twenty-third day of the fever, and convalescence was fairly established by the thirty-fifth day.

The second patient, a little girl of three and a half years, suffered from the development of double suppurative parotitis about the twenty-fifth day of the fever, and aphasia from an earlier period. The fever persisted for some time after the evacuation and drainage of both abscesses, but convalescence

was finally fairly established about the forty-fourth day from the onset of the illness.

The literature pertaining to meningitis and parotitis as complications of typhoid fever was reviewed, and many statistics, showing their comparative infrequency, were given.

The third case, an unreported case of Dr. C. W. Rook, of Quincy, Ill., occurred in a boy of three years, and was unusual in the development of swelling of submaxillary glands of one side on the seventeenth day of the fever. Later, this suppurated and the pus was evacuated; and one week following a parotid abscess formed, resulting in the death of the patient on the thirty-third day of the illness. The author, in an extensive search of the literature pertaining to typhoid fever, its complications and sequels, was unable to find but three other cases detailed in which the submaxillaries became involved in the course of the disease.—*Virginia Medical Semi-Monthly*.

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SERUM TREATMENT IN TYPHOID FEVER.—In an article in *L'Union Medicale de Canada* for October, 1899, Dr. Lesage reviews the history of the serum treatment of typhoid fever. In 1888, Chantemesse and Widal gave to mice repeated injections of bouillon typhoid cultures sterilized by filtration. In 1891 Briegner, Kitasato and Wassermann, and in 1892 Bitter, instead of filtering the cultures, extracted by means of alcohol an active principle, their cultures being concentrated and heated to 80° C. In 1892 Sanarelli and Bruschetti sterilized their cultures by heating them to 120°. All these experiments demonstrated that the serum of animals which have been inoculated with the typhoid cultures possesses both preventive and curative properties as regards typhoid fever. The serum may be injected before or after the typhoid virus, the whole secret being in the dose administered. If, for example, the serum and virus are injected at the same place and time, half a cubic centimetre will suffice. If, however, the serum is injected before or after the virus, and at a different point, about two cubic centimetres would be necessary. About this same time, Stern and Chantemesse and Widal, experimenting with the blood serum of individuals who had already had typhoid fever, proved that its efficacy diminished proportionally to the length of time between the two injections.

They also discovered that the serum of individuals who had never had typhoid fever was in certain cases endowed with immunizing properties. In 1895, Beumer and Peiper immunized sheep with typhoid cultures sterilized by a temperature of  $55^{\circ}$  to  $60^{\circ}$ , and obtained a very active serum. Finally, in 1896, Loeffler and Abel were successful in immunizing goats against the infection of the typhoid and of the colon bacillus, by means of the same kind of serum. Although the experiments of Chantemesse and Widal in 1892 and 1893 were unsuccessful, their later efforts were more satisfactory. The lack of success was thought due to the fact that experiments in the serum treatment of typhoid fever were made by the aid of serum of animals immunized against the colon bacillus. A report was made at the congress of Rome in 1894, by Demel and Orlandi, who had obtained some favorable results by these means. Cultures of the bacillus pyocyaneus were employed by Presser in 1895, with mediocre results. Rumpf at the same time made the same trial with the bacillus pyocyaneus with similar outcome. He proved that cultures of this bacillus do not possess a specific power antagonistic to the typhoid bacillus, but act simply by exciting the natural means of defense of the organism. In the same year, 1895, Klemperer and Levy succeeded in augmenting the dog's natural immunity against the typhoid bacillus by injecting into the peritoneum virulent cultures of Eberth's bacillus. They obtained in this way a serum so active that it would even bring about a cure if the injection was made a certain time after infection took place. Then with the same serum they treated five typhoid patients in the first seven days, and they all had an illness of the lightest character.

It is easy to prove that the serum has not had any disagreeable effect. In 1899, Funck, of Brussels, obtained serum with curative properties from goats immunized by cultures of Eberth's bacillus, killed by phenic acid. Finally, in 1896, Chantemesse reported to the Society of Biology at Paris a serum taken from goats immunized against the toxin of the typhoid bacillus, of such power that one-fifth of a drop, injected twenty-four hours before the dose fatal for these animals, positively protected them against injurious effects of the virus. Following the example of Klemperer and Levy, he treated exclusively by this serum three patients ill with typhoid fever. In each case the temperature

gradual; fell from the moment of injection, and "seven days after the treatment was begun the patients were restored to normal temperature and to health" (Chantemesse).

These results merit notice and are sufficient to inspire a hope that serum treatment may be found effective not only in typhoid fever, but also in other maladies now regarded as incurable.—*Medical Record*.

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VACCINATION.—Dr. David P. Austin read a paper on this subject. He said that the introduction of bovine virus had done away with one great objection to vaccine, i. e., the possibility of infecting the person with syphilis, and it had nearly overcome the feeling that it might be responsible for the communication of tuberculosis. Mention was made of a case coming under his observation, of a youth of eleven years, who while suffering from scabies had been vaccinated. As a result of this there had been twenty or more pustules formed on the body in the various scratch marks. Dr. Austin said that in 1870 he had had a large experience as a vaccinator for the board of health. There had been scarcely a failure among the primary vaccinations, while in the second vaccinations the number of successes had been something under sixty per cent., and with the third vaccinations about thirty per cent. He had himself been vaccinated about fifty times, yet none had proved successful after the fourth. He favored adopting the plan in private practice of vaccinating people once a year until the immune condition had been established. That vaccination was not appreciated as it should be in our own country had been taught us by the melancholy lesson of our troops succumbing to smallpox at Manila. The speaker thought the probable reason our troops in the West Indies had not been so susceptible to the disease was that they had been, for the most part, recruited from the East and South, where the practice of early and especially repeated vaccination was common. In his opinion the troops should have been vaccinated at intervals of a month until the vaccinations had no longer been successful; in other words, until they had become immune. Ordinarily this immunity could be produced in a child at the end of five years, and if treated in this way they would be immune for the rest of their lives.



Dr. J. H. Huddleston said that there could not be any doubt regarding the necessity for revaccination, but he could hardly agree with the statement that a life immunity could be established. When the vaccination was properly performed with good vaccine, and it was not successful, this was only evidence that at the time the person was not susceptible to the disease, but how long the immunity conferred by a successful vaccination would last no one could tell in the individual case. Immunity was slow of development, usually requiring from ten to fourteen days. It lasted for a variable length of time. Cases had been reported of natural immunity, but it was doubtful whether such cases really existed. In several series, including one hundred thousand cases each, no such case of natural immunity had been encountered. The immunity produced by the disease vaccinia might last only a short time. There was a case on record in the institution on North Brother Island in which there had been a successful revaccination within six months after a successful vaccination. Cases evidencing even shorter immunity were on record.

The Protection Afforded.—Dr. Frank S. Fielder said that the literature seemed to show that it had been customary to vaccinate a child in infancy, and again when first coming to school, and that a very large number of these second vaccinations had been successful. Statistics also seemed to show that after a successful revaccination the duration of the immunity was very much longer, although not likely to last the rest of one's life. Among fifteen thousand cases on record the deaths from smallpox among vaccinated persons had been thirty-five per cent.; in those with one vaccination it had been 7.73 per cent.; in those with two scars 4.7 per cent., and in those with three vaccinations 1.95 per cent., while in those with four or more scars of vaccination it had been 0.55 per cent.; hence when there were several scars indicating successful revaccinations, the mortality from smallpox was comparatively low. At one time he had vaccinated ten school children, each one in four places. Each child had had a typical vaccination in all four spots. Eight months afterward he had gone to the institution and examined all of these children. All had had typical scars. He had then vaccinated all of these children with unimpeachable virus, and three of them had "taken" very well. An expe-

rienced physician in the health department had told him that it was much easier to revaccinate a person than it was to get the disease after a successful vaccination.

*Natural Immunity.*—The speaker went on to say that he was skeptical about the existence of natural immunity, and added that the greater one's experience in vaccinating with good virus, the more skeptical did one become on that point. However, one physician who had been among hundreds of cases of smallpox, and had been repeatedly vaccinated without result, had submitted to being vaccinated by Dr. Fielder in a number of places with virus that had been proved by clinical tests to be of excellent quality. The vaccinations had been unsuccessful, and the same result had followed a repetition of this experiment a few months later.

*The Scar an Untrustworthy Guide.*—On the subject of vaccination scars and what they signify, Dr. Fielder said that in a large number of cases of typical vaccinations with good virus he had visited the persons again after six months and had been surprised to find the large percentage showing scars which would be rated as "fair" or "poor." Only about thirty-three per cent. of these cases had exhibited what would be termed "good" scars. On the other hand he had known cases showing "poor" scars to be quite resistant to revaccination. From these considerations it was wise to conclude that the only way to be absolutely certain of immunity was to revaccinate again and again.

*Locality of Vaccination.*—Dr. Henry Illoway said that at one time he had vaccinated a child of five years with a virus of good reputation. In all this child had been vaccinated five times without success. He had then tried vaccinating it with some human lymph, and as a control had vaccinated the brother of eleven years and the sister of nine years. The vaccinations on the brother and sister had proved successful, but the first boy's vaccination had been a failure. About six months later he had vaccinated this boy on the leg instead of on the arm as previously, with the result that a typical vaccination had been secured. This had suggested to him the possibility that owing to local differences in the circulation, certain parts of the body might be more susceptible than others. His experience had led

him to feel that there entered into this interesting question what might be called the dosage for individual cases.

Dr. Austin closed the discussion. He cited the case of a boy fourteen years old who had been repeatedly vaccinated without success, and who had finally been successfully vaccinated when human lymph had been used. Since that time he had twice vaccinated him successfully. In closing he insisted upon the importance of a sufficient number of revaccinations.—*Medical Record.*

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## Medical News and Miscellany.

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The twelfth annual meeting of the Southern Surgical and Gynæcological Association held in New Orleans, December 5, 6 and 7, was a most successful reunion, many splendid papers being read. The following officers were elected for the ensuing year: President, A. M. Cartledge, Louisville, Ky.; vice-presidents, Dr. Manning Simons, Charleston, S. C., and Dr. W. P. Nicholson, Atlanta, Ga.; secretary, Dr. W. E. B. Davis, Birmingham, Ala.; treasurer, Dr. W. D. Haggard, Nashville, Tenn. Next meeting will be held in Atlanta, November 13, 1900.

The Mississippi Valley Medical Association recently held its twenty-fifth annual meeting in Chicago. It is said to have been the most successful in the history of the society. The following officers were elected: President, Dr. Harold N. Moyer, Chicago; first vice-president, Dr. A. H. Cordier, Kansas City; second vice-president, Dr. S. P. Collins, Hot Springs; secretary, Dr. Henry E. Tuley, Louisville; treasurer, Dr. Dudley S. Reynolds, Louisville; chairman of arrangement committee, Dr. M. H. Fletcher, of Asheville, N. C., where the twenty-sixth meeting will be held, October 9, 10 and 11, 1900.

The Tri-State Medical Association, of Mississippi, Arkansas and Tennessee, held its annual meeting in Memphis, November 14, 15 and 16, and after a series of highly interesting papers being read, elected the following officers for the new year: Pres-

ident, Dr. C. Travis Drennan, Hot Springs; vice-president for Mississippi, Dr. Charles L. Hayes, of Byhalia; for Arkansas, Dr. J. P. Runyon, Pine Bluff; for Tennessee, Dr. I. A. McSwain, Paris; secretary, Dr. Richmond McKinney, Memphis; treasurer, Dr. Marcus Haase, Memphis. Quite a number of our Mississippi physicians were elected to membership. The association is rapidly becoming a potent factor in developing medical thought and research among its triple state membership. Long may it flourish.

Dr. Leonard Wood has been promoted to the rank of major general of volunteers, and assumes office as governor of Cuba. An honor well bestowed and one which in his hands will be well executed. *Saludas, senior medico y general!*

Dr. John J. Archinard was recently married to Miss Madeleine Vienne, of New Orleans, in the presence of a brilliant assembly at St. Louis cathedral. May they be blessed with long life and happiness.

Since our last issue Dr. C. A. Sheely, of Gulfport, has been happily united in the silken bonds of matrimony to Miss Willie Polk, also of Gulfport. Our congratulations are cordially extended. After a brief tour to parts unknown they returned to Gulfport and began life's journey in earnest. May their path be strewn with roses and their home a haven of rest.

The Dios Chemical Company, of St. Louis, Mo., manufacturers of the standard remedies, Dioviburnia (uterine tonic), Nenrosine (neurotic), Semmine (antiseptic dry dressing), Palpebrine (external eye diseases), will mail to physicians free of charge their new combination paper weight and mirror on receipt of 10 cents to pay postage.

GONORRHOEA AND VULVO-VAGINITIS IN CHILDREN.—Dr. Nosotti (*British Medical Journal*, September 30, 1899,) speaks well of protargol in the treatment of gonorrhœa at all stages. The solutions used varied from one-half per cent. in the early days to two per cent. in the later stages. No ill effects were noticed, no epididymitis or other secondary inflammation. It was much more satisfactory as an injection than permanganate



of potash. It was found very useful in the vulvo vaginitis of children. Protargol causes a free elimination of epithelial and pus cells and of gonococci from the urethral mucous membrane.

**GIVE RELIEF.**—The experience of many of the best men of the profession, not only of the United States but abroad, has established the clinical value of antikamnia. Among those who have paid high tributes to its value and who occupy positions of great eminence, may be mentioned Dr. J. Acheson Wilkin and Dr. R. J. Blackham, practitioners of London. They have found it of value in the neuralgias and nervous headaches, resulting from overwork and prolonged mental strain, paroxysmal attacks of sciatica, brow-ague, painful menstruation, la grippe and allied conditions. Indeed the practitioner who has such cases as the latter to come under his observation, who attempts their relief by opiates and stronger drugs when so efficient an agent can be used, which is much less harmful, commits a grave error. Experience goes to prove that ten-grain doses of antikamnia in an ounce of sherry wine, taken every two to four hours, will carry the patient through these painful periods with great satisfaction.—*Medical Reprints*, London, England.

**CHRONIC CYSTITIS.**—The *Bulletin* was instrumental in calling my attention to the combination of drugs known as lithiated hydrangea, and a case of chronic cystitis has yielded so happily to its administration, that its report may be of interest.

Patient, a married lady, æt. 30 years, suffering from calculi, much reduced in flesh, of nervous temperament, and desponding, hypochondriacal disposition. I had used at different times the simple fluid extract hydrangea, nva ursi, buchu, flax seed tea and elm water, as well as washing out the bladder with a solution of nitrate of silver, etc., without success. I then commenced the use of lithiated hydrangea (Lambert) in teaspoonful doses four times a day, and after three days increased to tablespoonful doses. At the end of the first week I could see no marked change, but persisted in its administration. On the morning of the eleventh day of treatment the patient was reported much worse, and my visit found her suffering intensely and continuously passing water, in small quantities, containing clots of blood. I injected four ounces flax-seed tea and laudanum into

the bladder, which partially relieved the pain and tenesmus, and enabled the passage of a large quantity of water, containing three ounces, by weight, of what I supposed to be phosphate of lime. I then added fifty per cent. of the fluid extract of buchu to the lithiated hydrangea for several days, during which time she continued to pass the brick-dust deposit, which was followed by a gradual improvement in her general condition. I used no other treatment except to keep hot hop poultices over the pubis. She now has no trouble whatever in passing her water, and no pain or soreness over the region of the bladder. I must ascribe the ultimate benefit to the lithiated hydrangea on account of its removal of the cause of irritation—i. e., the dissolution of the calculi.—P. D. McAdams, M. D., Rosedale, Ohio, in *Medical Bulletin*.

The following officers have been elected by the Memphis Medical Society for 1900: President, Dr. E. C. Ellett; vice president, Dr. E. A. Neely, secretary and treasurer, Dr. Edwin Williams; reporter, Dr. R. B. McKinney.

Dr. J. R. Tackett, of Meridian, was recently called to Flora to administer to Dr. Crisler, of that place, who was suffering with an attack of yellow fever. We are pleased to state that Dr. Crisler has recovered.

The Tri-State Association of the Carolinas and Virginia will be held in Charleston, February 20, 1900. From accounts, few medical bodies have a more scholarly and able membership, taken as a whole. The annual discussion for this meeting is one full of great interest to us in the South—"The Negro; his sexual life and character; the influence of his present surroundings and those coming from his far-away home." We will await the report with much interest.

"The catching diseases, their origin, dissemination and prevention," was the text of a recent lecture by Dr. H. M. Folkes to the public schools of Biloxi. This lecture was the first of a series of such talks to be delivered to the public schools by the medical and dental professions of this place, and is the fruition of a year's efforts in this direction by this journal. The next talk will be one by Dr. W. O. Talbot, D. D. S., on "Oral Hy-

geine," and as the doctor has made a careful study of this subject, in season and out, the children may be assured of hearing something good and useful.

Ecthol (Battle & Co.) is being highly extolled by numerous observers in the profession. It is claimed to be of material benefit in carbuncles, boils, ulcers, snake-bites, erysipelas, etc. Some laud it in cancerous conditions, others sing its praises in eczema. The manufacturers ask but a trial.




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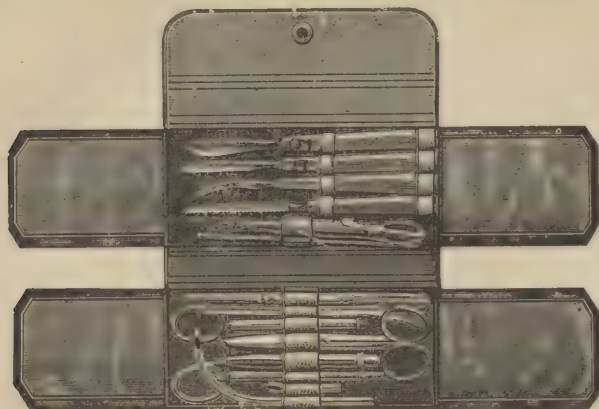
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# The Journal

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## Mississippi State Medical Association.

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### Original Articles.

#### Vibration as a Hypnotic and Anæsthetic.\*

By B. F. WARD, M. D., WINONA, MISS.

There is no instance on record in the history of railroads of a human being asleep on the track or in contact with rail or crosstie being aroused by an approaching train in time to escape. They are always found dead, and the question generally remains unsettled whether the victim was asleep on the track or had been murdered and placed there to conceal a crime.

Abundant evidence furnished by twenty years of observation and investigation convinces me "beyond a reasonable doubt" that when a man lies or sits on a railroad track, in touch with rail or crosstie, the rhythmic vibration communicated to the rails by the revolving car wheels, even at a great distance, slowly and surely soothes his nervous centers into a gentle somnolence which, as the vibratory wave steadily and uniformly increases in force with every revolution of the wheels, deepens gradually into narcosis and anesthesia as profound as can be produced by chloroform or ether. While the verity of this proposition will be

\*Read before the Mississippi State Medical Association, April, 1899.

established by indubitable fact, yet it is a conclusion at which we may justly and readily arrive by logical induction.

The somnolent effect of vibration upon the nervous system of the infant is illustrated in the rocking of the cradle and the low, soft, rhythmic notes of the mother's lullaby. A like impression is made by the monotonous sound of a distant waterfall and the pattering of the rain-drops on the roof at night. These and other similar vibratory agencies, when converged, extended, intensified and isolated, constitute the elements of hypnotism.

There are three simple and essential factors in hypnotism.

1. Limiting the vision to some bright and attractive object for the purpose of fatiguing the muscles of the eye, dilating the pupils and producing dimness of vision, which is more readily accomplished by directing the eyes steadily in an oblique direction.
2. So fixing the attention as to exclude as far as possible all extraneous and diverting influences. The great nervous center being thus isolated, as it were, it only remains for the third and last stroke to be delivered; this consists in the vibratory waves of sound set in motion by the low monotonous tones of voice in which the hypnotist directs his subject to "go to sleep." These waves of sound are rolled against the tympanum with a soft rhythmic precision, and the vibration thereby conveyed to the nerve center is the real and only soporific and anæsthetic agent in the production of the hypnotic state.

Fixing the attention and fatiguing the muscles of the eye are merely favorable environments which prepare the nerve center for the reception of anæsthesia through vibration, which is the true hypnotic force, just as absolute quietude around the subject to whom chloroform is about to be administered greatly facilitates the specific action of the anæsthetic.

We know that scientists have long contended that a powerful and mysterious force was exercised through rhythmic vibration. It has been asserted by some investigator along this line that a solid iron shaft several inches in thickness might be broken in two by the gentle strokes of a tack hammer if delivered on the same spot for a sufficient length of time with absolute and unvarying rhythmic precision, whereas violent blows irregularly delivered would have little effect in dissolving the atomic cohesion which constitutes the strength of all solid bodies. It is a recognized fact that great iron bridges over which im-

mense trains are constantly passing may in time become unsafe through the effect of vibration in loosening the cohesive elements of the iron. We know also that long columns of infantry are required to break the step in crossing bridges in order to avoid the danger of vibratory force communicated to the bridge through the rhythmic precision of the military step. We are also aware of the curious fact that sometimes, in the still hours of the night, a cat will shake a large house by the vibration set in motion through its soft rhythmic footfalls in trotting through a long hall, though it creates no more sound than would the fall of a feather.

If additional evidence were required many other illustrations of the wonderful and potential energy of vibratory force might be gathered from natural phenomena, but we come to a few facts in verification of its hypnotic and anæsthetic agency.

In the month of May, 1879, a strong, healthy, young negro man was at work in a wood yard two miles north of the town of Winona, Miss., on the Illinois Central railroad, but whose home was about a mile south of the town on the same road. Passing to his home one evening a little after dark and being fatigued from his day's labor, when a quarter of a mile south of town he sat down on the end of a crosstie and leaned forward with his elbows on his knees, intending to take only a short rest. He knew nothing more until near day next morning, when he awoke with the sensations succeeding a natural sleep, feeling only a little chilled from the cool morning air. In attempting to rise, however, he discovered that there was something wrong with his left arm, and upon investigation found that it was lying directly across the rail and a train had passed over it, crushing it to a pulp a little above and including the elbow, but not entirely severing the skin. No train was in hearing in either direction and the dead arm was cold, showing that he had lain in that position for some time after the train passed. Holding the crushed arm in his right hand, across and in front of his body, he walked firmly and leisurely into town, where I amputated the limb, and he made a rapid recovery. He felt no pain, his circulation was normal, and he evinced no sign whatever of shock. There was no mark or contusion about the body or head and not the slightest manifestation of cerebral concussion. He sat complacently on a stool and conversed intelligently with me while I

made preparation for the operation. Of course my first impression was that the man might have been drunk, though there was no odor of whisky about him, nor any other indication of recent intoxication. Naturally anxious to learn positively the facts of his condition, I pressed him closely, when he assured me that not only had he drank nothing nor taken any narcotic on that night, but that he was on all occasions a total abstainer from narcotics and alcoholic stimulants, and referred me to his associates and fellow laborers, who fully corroborated his statements. As the drowsiness incident to the impression of vibration upon the nervous centers gradually crept over him the man, in his stupefaction, had evidently fallen down parallel with the track, leaving his arm across the rail, and connection with the vibratory wave being thus preserved, the narcosis speedily deepened into anæsthesia, which grew progressively more profound exactly in proportion to the rhythmic increase of vibratory energy engendered by every revolution of the approaching wheels. The vitality of the arm being completely destroyed for two or three inches beyond the point of contact with the rail doubtless cut the connection between the nervous centers and the vibratory wave, thus accounting for the man's return to consciousness after a certain lapse of time, just as a patient sleeps off the anæsthesia of chloroform when the drug is withdrawn.

During the past twenty years we have collected the facts pertaining to quite a number of similar railroad casualties, all pointing unmistakably to a like conclusion, but it is not essential to the purpose of this paper that they should be multiplied here.

The principle to which we invite the attention of the medical profession is that narcosis and anæsthesia may be produced by vibratory force, and that the vibration, in order to effectually exert its specific effect upon the nerve centers, must be uniform and rhythmic, and to reach its greatest intensity the vibratory wave must gradually and steadily increase in force. Perhaps the ingenuity of man could not devise any appliance which would so fully and perfectly meet these indications as the relations that exist between a steel rail and a revolving car wheel, because it may be readily conceived that the vibratory thrill will begin to be faintly and delicately delivered at any given point on the track when the approaching train is perhaps fifty or even a hundred miles away, and, of course, with every revolution of the



advancing wheels there will be a uniform and perfectly rhythmic increase in the force of the vibratory wave as it is communicated to any fixed point on the track.

The question then presents itself, if this principle can be demonstrated is there any practical result deducible from the fact? We are all aware that the chief objection to chloroform and ether consists in the ever accompanying nervous depression, with disturbed circulation and respiration, and these perils, with their disquieting apprehensions, constantly rise at the operating table, like Banquo's ghost at the banquet, and "will not down" at our bidding.

We venture the suggestion, even at the risk of provoking the smile of incredibility, that it would require no very exalted mechanical skill to construct a metallic operating table with wheels run by electricity against rails attached to the under surface of the table, that would impart to the table and to the subject thereon a vibratory force exactly similar to that which the steel rail receives from the revolving wheel and equally as potent, and that a perfect anæsthesia might thus be secured as free from danger or subsequent distress as the natural sleep of an infant or the peaceful slumber of the healthy man. If, however, this professional dream may never materialize, the hope is still indulged that these reflections may not have been altogether in vain when the attention of the public has been attracted to the proposition that a healthy human being asleep on a railroad track cannot be aroused by an approaching train, but will always awake if lying a few feet from the track and not in contact with it, and, furthermore, that all persons are more liable to become drowsy and fall asleep when sitting or lying on the track.

Moreover, if this principle should ever become established in the courts, which is not improbable, it might materially affect the liability of railroads in damage suits for the destruction of human life in cases of alleged carelessness on the part of engineers in not sounding the proper alarm to persons on the track. There is a suit now pending against the Southern railway for killing a negro woman who was asleep with her head in contact with the end of a crosstie while her body was at a right angle with the road. She was struck on top of the head, but remained perfectly motionless, and was doubtless under the influence of vibratory anæsthesia.

It is well known that Charcot of Paris, Liebault and Bernheim of Nancy, Dr. Albert Moll of Berlin, and many other eminent physicians of Europe, get remarkable effects in the treatment of nervous diseases from hypnotic therapeutics, or, as they call it, "suggestion." Of course most of these gratifying results are obtained from what are called functional disorders of the nervous system, and which, as a rule, are of reflex origin, and are the result of disturbed circulation or an unequal distribution of the nerve forces, producing hyperæmia, hyperæsthesia, pain and sometimes local lesions, through interference with the nutritive processes. To all these conditions mechanical therapeutics, such as electricity, massage, heat and cold, hypnotism, etc., are applicable. Of all these measures it is probable that vibration may yet prove to be the most efficacious because the most potent and most uniform in its effects upon the disordered nervous centers.

It is not improbable that certain forms of insanity might be successfully treated by vibratory narcosis and anesthesia, since in that condition the equable distribution of nervous energy would be so akin to natural sleep that its repetition at proper intervals would permit the morbidly excited nerve centers, through prolonged rest, to resume their normal functions, just as Liebault, in his infirmary, cures various neuroses by the rest secured through frequent repetition of the first degree of the hypnotic state, which is scarcely more profound than natural sleep, and from which the patient awakes, after a short time, relieved and refreshed.

### **Intestinal Asepsis in Medicine and Surgery.\***

By J. H. KELLOGG.

The importance of giving attention to the condition of the alimentary canal in cases of disease, both medical and surgical, is not a matter which has recently been brought before the profession. Hippocrates urged the necessity for intestinal cleansing in medical surgery, and the surgeons of the last century invariably vomited and purged their patients for three or four days before undertaking any grave operation.

For several centuries mercury was relied upon as the most efficient of all agents for removing the condition of so-called bil-

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\*Read before the Mississippi State Medical Association, April, 1899.

iousness as indicated by the foul tongue. This drug was supposed to encourage the action of the liver, but we know now that it is simply a germicide. Within the past twelve years a vast number of antiseptic and germicidal agents have been recommended for combatting bacteria in the alimentary canal. Beginning with charcoal, then covered a wide range of toxic agents, including many of the coal-tar products, even chloroform having been highly recommended and quite extensively used for this purpose. Unfortunately, however, but little attention has been given to the simpler but more effective means. It is a good thing to capture and kill the wolf after he has broken into the sheep-fold, but it is far better to keep him out altogether.

This paper proposes to present a few practical facts and principles bearing upon the question of how to establish intestinal asepsis and the advantages of alimentary cleanliness in a large number of diseases, both medical and surgical.

That the alimentary canal of new-born animals is aseptic was conclusively proven a few years ago by the elaborate experiments of Nuttall and Thierfelder. These experimenters secured a young guinea pig by cesarean section, and transferred it under strict septic precautions to an apparatus consisting of a bell jar placed over a vessel containing water upon which was a layer of oil. Over this vessel was fixed a piece of wire netting, upon which the animal could move about. The apparatus was so constructed that the animal could be fed by means of sterilized milk and the apartment furnished with sterilized air, and the whole so arranged that there was no possibility of any germs gaining access to the inclosure in which the animal was confined. After eight days the animal was removed from the apparatus, killed, and opened under aseptic precaution. A careful microscopic examination of stained and unstained preparations of the intestinal contents showed a total absence of bacteria. Inoculations of the contents of the intestines grown under aerobic and anerobic conditions remained absolutely sterile.

The result of this experiment proves conclusively that the common belief that germs are necessary to physiologic digestion is erroneous. It has also been proven that no germs are to be found in the meconium of the fetus. This is further confirmed by the fact that no bile pigments, which are reduced in the adult alimentary canal by means of germs, are found unaltered in the

contents of the alimentary canal of the *foetus*. Graham Lusk makes the statement in the "American Text Book of Physiology," p. 987, that putrefaction is absent in the body of the *foetus*. A bacteriological examination of the feces of a new-born infant gives negative results, and could the infant be fed upon aseptic food and air, the results would undoubtedly be the same as those observed in the case of the guinea pig, which continued to thrive on its aseptic dietary.

Germs gain access to the body through the air, food and water, but when the stomach is in a condition of health and the physiological laws governing digestion are adhered to it destroys the germs which are present as a result of contact with the air, and does not allow them to set up putrefactive processes in the alimentary canal. That this is so has been proven by a large number of experiments conducted under my direction in the Laboratory of Hygiene of the Battle Creek Sanitarium. In a series of 377 stomach fluids examined, 191 were found to be absolutely sterile, while 67 contained less than fifty bacteria per c. c., a number so small as to be considered accidental, so that these may also be considered as sterile, while 102 contained bacteria in number varying from a few hundred to more than two million per c. c. of stomach fluid. It was somewhat of a surprise to find so many sterile stomach fluids, especially as other investigators have asserted that the stomach and intestinal fluid are not so destructive of micro-organisms as was formerly supposed. My observations were all made on the stomach fluid after a test meal consisting of a perfectly sterilized food—1½ ounces of the food to 8 ounces of water. I was especially surprised at the recurrence of so large a number of perfectly sterile fluids because of the assertion commonly made by bacteriologists and physiologists that bacteria are not only constantly present in the alimentary canal, but are helpful in the digestive process. The fact that no bacteria whatever were found at the end of the first hour of digestion in 50.8 per cent. of the 377 stomach fluids examined seems to be all the evidence required to demonstrate the proposition that the normal stomach is able to destroy those microbes which accidentally enter it through the mouth and nose, and that microbes play no part in normal stomach digestion.

Experiments conducted by Kurhoff and Wagner have led them to conclude that there are no microbes which are habitually



parasites of the stomach, and that such microbes as do enter the stomach are soon destroyed, and have no influence on digestion, the normal gastric juice being able to destroy within half an hour all microbes except those which contain spores such as the bacilli of tuberculosis and anthrax.

Comparison of the results obtained by bacteriological and chemical examinations of the stomach fluids showed that in the cases in which there was a normal amount of hydrochloric acid present the stomach contents were sterile. It was further demonstrated that the number of germs present in the infected cases depended largely on the kind of food ingested. When the test meal consisted of granose, which is a thoroughly sterilized preparation made from entire wheat, mixed with 8 ounces of water, 78 per cent of the stomach fluids were found to be sterile. In the other cases very few microbes were present. The test meal was then changed to one of water biscuit, consisting of flour and water baked in small cakes. Germs in great abundance with yeast germs of various sorts at once appeared. Ordinary fermented breads and similar foods likewise gave an abundance of germs in nearly every case.

The conclusion arrived at from this investigation is that in the use of a thoroughly sterilized food, like granose, the stomach is able to destroy completely the few microbes which may be carried into it from the mouth in the eating of the food, so that a perfect aseptic condition of the stomach may be established. Disorders arising from an aseptic alimentary canal are extremely numerous, as the exhaustive researches of Bouchard, Dujardin-Beaumetz, Boix and others show. Bouchard has found by the examination of hundreds of cases that the leading chronic disorders are almost universally accompanied by dilatation of the stomach; for example, in pulmonary tuberculosis, this condition was found in two-thirds of all the cases; in chlorosis, in four-fifths of the cases; while in hypochondria, gastric neurasthenia, Bright's disease and a great variety of other chronic maladies it was found present with equal frequency. Bouchard observed also that persons suffering from dilatation of the stomach take cold easily, and are habitually troubled with nasal and pharyngeal catarrh, albuminuria, various cardiac troubles, rickets and osteomalacia were likewise found associated with gastric dilatation, as well as chronic rheumatism and infectious jaundice.

Bouchard further observed that these maladies are really the result of deficient nutrition, because this food, being incompletely digested, becomes putrid and ferments, and no longer suffices to nourish the system. Thus they are the victims of insufficient nutrition, due in part to imperfect digestion, whereby the quantity of assimilable matter contained in the food is diminished, and in part to fermentation, whereby the good material is partially destroyed, the Hcl. of the gastric juice being much too diluted to be capable of preventing the anomalous fermentation induced by organized ferments. He also showed that dilatation of the stomach, whether passive or latent, gives rise to abnormal retention of food in this hollow viscus, and called attention to the fact that delay of food in the stomach beyond the normal limit (three and one-half to five hours) is certain to be followed by the development of fermentative and putrefactive processes, resulting in the production of ptomains and toxins of various sorts.

Boix has more recently made a careful study of the character of the poisons produced in dilatation of the stomach and other morbid conditions accompanied by indigestion, and the influence of these poisons upon the tissues, especially of the spleen, kidneys and liver. Remarking upon the observations of Bouchard, that "disease of the kidney may result in the development of general vital disturbance," Boix says with much force: "I regard the kidney as an organ whose function is inferior in importance to that of the digestive tube. It only expels impurities from the body without modifying them. Nevertheless, how many disorders result in the body at large from disease of these organs? How much greater diseases may we expect, then, when the stomach is diseased, the functional disturbance of which deranges the entire intestinal tract? The derangement of the stomach acts upon the entire body. Consider the importance of the digestive tube. It introduces into the body every solid and liquid substance except O. and before introducing these substances it elaborates them. It plays, then, not only the role of an emunctory, but a disturbance of its functions must exercise a most pernicious influence upon the functions and cells of the entire body."

Boix does not claim that his observations are new. He cites the observations of Hippocrates, that "the stomach is to the

animal what the cell is to the plant," and quotes from the learned Beau the observation that "the man whose digestion is defective is comparable to a tree, which, planted in sterile soil, withers and perishes."

The following is a partial list of the symptoms and conditions which Boix attributes to the influence of the ptomains and toxins produced in the alimentary canal through the fermentation of farinaceous, saccharine and proteid material: Headache, depression, sensibility to cold, insomnia, vertigo, disturbance of vision, feebleness on rising, hallucinations, numbness of limbs, spasms of extremities, temporary loss of speech, fainting, palpitation, night sweats, intercostal neuralgia, alteration of the secretion of the sweat glands and of the sebaceous follicles; eruptions such as eczema, urticaria, acne, pityriases, albuminuria, peptonuria, general exhaustion, loss of physical and moral energy, emaciation, enlargement of the base of the second phalanges (nodosities of Bouchard), osteomalacia.

Boix made a careful study of the different poisons developed in the alimentary canal and their origin. He enumerates especially the following: Lactic acid, acetic acid, butyric acid, valerianic acid, propionic acid, fatty acid, oleic acid, formic acid, palmitic acid, stearic acid, oxalic acid, alcohols, acetones, pepto-toxin, indol, scatol, cresol, phenol, excretin, salts of potash and others more or less clearly defined.

These poisons are the result of the action of micro-organisms, among the most constantly present and persistent of which are the staphylococcus pyogenes aureus and the bacillus coli communis. The author refers to the bacillus coli communis as "the dangerous guest of the intestines, where it reigns a despot."

Boix has undertaken a series of experiments to ascertain the conditions which favor the production of these poisons, and also to determine the conditions favorable to their development, the most active of which are chronic catarrh of the stomach and intestines and dilatation of the stomach, which he terms "constipation of the stomach."

By means of a very elaborate series of experiments Boix has shown that these poisons, when introduced into the circulation of a healthy rabbit, give rise to cirrhosis, fatty enlargement and other pathological changes in the liver. He also

points out the fact that clinically enlargement of the liver is not infrequently found in chronic disorders of digestion.

From the foregoing the necessity of maintaining the intestinal canal in an aseptic condition can readily be seen. The question naturally arises what is the most rational means of bringing about and maintaining this condition.

The writer in the treatment of several thousands of cases in which the alimentary canal was in a septic condition has obtained most excellent results by adopting an antiseptic dietary. Such a diet must exclude all classes of decomposing substances, such as cheese, flesh meats of all kinds, fish and shell fish. This class of food-stuffs is always more or less contaminated with the products of decomposition when introduced into a human stomach. Cooking may check the putrefactive process, but the products of decomposition are not destroyed by ordinary cooking-heat, and are absorbed, and entering the blood, work mischief in various parts of the body when introduced into the stomach. An excessive use of fat is also a source of injury, as it prevents the liver from performing its normal function. The use of imperfectly cooked starchy foods is a prolific source of derangement of the stomach. The writer is of the opinion that the half-cooked oatmeal, cracked wheat and other so-called "breakfast cereals" that are swallowed by thousands under the impression that they are peculiarly wholesome and healthful are a prolific source of gastric disorder in that they hasten putrefactive processes in the alimentary canal.

A fruit diet is particularly serviceable in cases of this sort, principally because of the wonderful disinfecting power of fruit, as shown a few years ago in a series of experiments conducted under my supervision in the laboratory of the Battle Creek Sanitarium. Fruit juices are unfavorable to the development of germs in the stomach, and by the use of fresh fruits and fruit juices the growth of those germs that produce biliousness, sick-headache, coated tongue, and allied conditions, is checked. The cleansing of the stomach by this means results in lessening the number of microbes in the intestinal tract. In this manner the whole alimentary canal is cleansed, and the production of ptomaines, which has been going on at a most rapid rate for many years, is checked. I consider the free use of fruits as highly essential in the management of these cases.



Nuts afford an excellent substitute for meat in these cases because of the large per cent of proteids and also of fats which they contain in a form that is most easily digested. It is, however, necessary that they should be properly prepared for use. The peanut lends itself readily to ordinary culinary purposes. It is only necessary to remove the shells and skins and subject this nut to long boiling (ten or twelve hours) to produce an exceedingly palatable, wholesome and digestible food, with both proteids and fats in a convenient form for prompt digestion and assimilation. These nuts, as well as others, can be cooked in a variety of ways. At the present time numerous excellent nut preparations are offered in the market which are more than perfect substitutes for meat since they afford all the desirable gustatory qualities of meat without their injurious properties, and are wholly free from ptomains and other toxic substances. A fruit and nut dietary is admirably adapted to this class of cases.

If cereals are used they must be well cooked—that is, the cooking of starch must be carried to the point of slight browning or toasting. There are three methods or degrees of cooking starches or cereal foods—namely, kettle-cooking, oven-cooking, and dry cooking, or toasting—the last named being the only one that secures complete cooking. A bit of well-browned zwieback or granose has been carried by the agency of heat through the first three stages of digestion—amylodextrin, erythrodextrin and achroodextrine, and is ready for instant conversion into maltose by contact with the saliva in the stomach, with the pancreatic juice in the small intestine. Maltose is finally changed to levulose or fruit sugar while passing through the intestinal wall into the blood vessels in the process of absorption. In fruits the carbo-hydrates represented by starch in the grain are found in the form of levulose, which is identical with completely digested starch, and is thus ready to be absorbed at once, and as soon as absorbed it is prepared for immediate assimilation and use by the body.

The nature of the poisons produced by the action of bacteria, as has been shown by numerous bacteriologists, varies greatly according to the media on which they subsist. It has been clearly demonstrated that microbes which are non-virulent when growing in infusions of vegetable substances become

extremely virulent and produce most deadly ptomaines when grown in meat infusions, such as beef tea, or peptone-gelatin, culture media.

Widal and Roux and other investigators have recently called attention to the readiness with which the common bacillus coli, found in the colons of all mammals, acquires a most virulent character, which renders it capable of producing abscesses in remote parts of the body, pleurisy, peritonitis and other inflammations of an infectious character. The intimate relation of this microbe to peritonitis, appendicitis, hepatic abscess and other septic conditions in the region of the abdomen has been clearly established, and the conclusion is irresistible that we may properly regard this versatile bacillus as a source of danger in operations involving the peritoneal cavity.

That the microbes which commonly inhabit the intestines may produce peritonitis is evidenced by the experiments of Roux and various other observers with pure specimens of bacillus coli communis. Both purulent peritonitis and abscesses were produced by these investigators with pure cultures of this germ. Pure cultures of bacillus coli have been found in abscess of the kidney and spleen, in typhoid fever, in peritonitis, in pleurisy, in meningitis, in hepatic abscess and in abscesses in various remote portions of the body, showing the readiness with which this microbe migrates from the intestines, invading organs even so far distant as the brain. A pure culture of bacillus coli was found in one case of peritonitis resulting from perforation of the intestines. Bacillus coli has also been found in the pleuritic fluid obtained in a case of pleurisy occurring as a complication of typhoid fever.

I regard an unclean condition of the intestinal canal as the most important of all causes of peritonitis. It may operate in two ways:

1. As a source of direct infection, as is clearly shown by the fact above stated.
2. By encouraging the development of microbes which have been introduced through the operation wound.

Microbes, like all other vegetable organisms, will not grow without a suitable soil. Extensive peritonitis without stagnant fluids in the peritoneal cavity is an impossibility. If the absorbents of the intestines are loaded with ptomaines and other pro-

ducts of putrefaction generated in the intestinal canal they can not be at the same time active in draining the peritoneal cavity. The importance of drainage of the peritoneal cavity through the intestines has been well and frequently brought to the attention of the profession by Dr. Lawson Tait.

When a pupil assistant with Dr. Tait some years since, I one day asked him, "Doctor, what do you consider the most essential things to be done in peritonitis following laparotomy?" He said in reply in his blunt fashion and greatly to my surprise, "Nothing at all; the patient who has peritonitis after a surgical operation is certain to die. The time to cure peritonitis is before it begins. If the peritoneal cavity is kept well drained peritonitis will not occur. The importance of this is to keep the peritoneal cavity free from stagnant fluids. I am not afraid of germs; they cannot grow without food."

I have given a great deal of thought to Mr. Tait's remark, and have made it the basis of the post-operative treatment of my cases.

Whenever the patient's temperature begins to rise after an operation, whether it is twelve hours or twenty-four hours, or any time within three or four days following the operation, I take it for granted that there are stagnant fluids in the peritoneal cavity, or putrescent fecal matters in the intestine, and I immediately proceed to adopt most active measures to remove the danger as regarded from this standpoint. A soap and turpentine enema, or an enema of glycerine with sulphate of magnesia, is at once administered, and repeated until the bowels are made to move with very great thoroughness; and if this is not sufficiently effective a saline laxative administered in doses sufficient to secure several watery stools. The effect of these vigorous evacuating measures is not only to empty the small intestine, but, by draining the portal vessels, to stimulate absorption from the peritoneal cavity. I am satisfied that I have by this method saved the lives of a number of patients.

A microbe which can produce a pleurisy can certainly set up a peritonitis if only favorable conditions are supplied, and these are to be found in the temporary intestinal paralysis and consequent stasis of intestinal contents which so often follows operation involving the peritoneal cavity, together with the exudation of fluids from the torn and irritated serous surfaces, which offer

the best possible medium for the development of pathogenic microbes. The advantage of getting rid of this fluid as rapidly and as completely as possible is a lesson long ago learned from experience by abdominal surgeons, and it has placed the drainage tube near the head of the list of life-saving devices which have been contributed by the masters of this branch of surgery within the last quarter of a century.

Next to the drainage tube, perhaps before it in importance, must be placed the Lawson-Tait method of managing the bowels, which consists essentially in thorough evacuation of the bowels before the operation, and the withholding of all food for forty-eight hours after the operation, or until a movement of the bowels has been secured. The superiority of this method over the old method of confining and paralyzing the intestines with huge doses of opium is attested by every abdominal surgeon who can show a good record of recoveries.

The only modification of this method which I have undertaken is simply an extension of it. I begin the work of getting the bowels into a thoroughly aseptic condition a week or two before the operation in every case where it is possible to do so. Daily, or every other day, the bowels are washed out by a large colocolyster administered with the patient in the knee-chest or right Sims' position. A gentle laxative is employed for at least two or three days before the operation, and administered so that the patient will come to the operation with the intestines completely emptied of both fecal matter and flatus, a condition which greatly aids the surgeon during the operation, and constitutes one of the most important safeguards against unfortunate complications following the operation.

In addition to this, when possible, I prescribe for the patient for a week or two before the operation daily gentle massage of the abdomen, when contra-indicated, daily fomentations, and the moist abdominal bandage, to be worn night and day, after the German fashion—a most excellent means of removing a congested state of the bowels, so common in persons whose bowels are not normally active. Thus the mischief-making microbes of the intestines are swept away on the one hand and starved out on the other, so that a condition of the most thorough asepsis is secured.

The same course is pursued, and with even greater vigor,



for the first week following the operation, or until the patient is well established in convalescence. A variety of toothsome dishes from which all objectionable elements are excluded is provided to tempt the patient's appetite, and complaint is rarely ever heard because beef tea, oyster broth and similar unwholesome concoctions are excluded from my surgical wards.

I am confident that the use of beef tea and other animal foods should be carefully avoided in cases in which it is desired to maintain the highest possible degree of asepsis in the alimentary canal. Beef tea and other meat juices afford the most favorable culture medium for the development of microbes of a most virulent character, especially bacillus coli and other allied microbes which are found in the alimentary canal.

Some time ago I conducted a series of experiments which very clearly demonstrated this fact. The experiments consisted of the intra-venous injection of rabbits, first with sterilized bouillon, and second, with a bouillon culture of normal feces. In the first experiment a rabbit weighing 2.320 kilos received 427 c. c. of bouillon before death occurred. The symptoms resulting were a copious diuresis, a watery diarrhœa, slight clonic spasms, slow respiration, slight dilatation of the pupils, corneal insensibility and exophthalmus. The amount of bouillon required to kill, per kilogram, was 186.5 c. c. The temperature of the rabbit at the beginning of the experiment was 39° C.; at death, 36.1° C.—indicating a loss of 5.482 calories. The amount of heat absorbed by the injected fluid was 7.728 calories, showing an actual gain of 2.246 calories, notwithstanding the great fall in temperature.

In the second experiment a forty-eight hour culture of normal feces in bouillon of the same strength as that used in the previous experiment was injected into the vein of a rabbit weighing 1650 kilos. The death of the rabbit occurred when only 29 c. c. of the filtered bouillon had been injected, about one-fifteenth of the amount required in the previous experiment. The symptoms were as follows: At the end of thirty seconds, pupils contracting; one minute, pupils strongly contracted; two minutes, clonic spasms, slow respiration, micturition; two minutes and thirty seconds, continuous clonic spasms, cornea, insensible; at the end of three minutes, pupils dilated, violent trembling and death. The amount of fluid required to kill a kilogram of rabbit in this case was only 17.57 c. c., less than one-tenth the amount of bouillon required.

It has been found by laboratory experiments that those germs which are the most dangerous and deadly to human life grow best in beef tea and other preparations of animal tissues. It is this fact which gives rise to the peculiar offensiveness of decomposing processes in animal products, especially the tissues of animals, as compared with the same processes in vegetable products. Compare, for example, the processes of decay in an apple, a peach or a loaf of bread, with decay in birds, fish or a piece of beefsteak or an oyster. That the same thing is true respecting these processes within the human body is shown by the peculiar and extraordinary offensiveness of the feces of a carnivorous animal, as a dog or cat, when compared with the excreta of an herbivorous animal, as a cow or horse. If the excreta of a cow or horse were as obnoxious and offensive as that of a dog, a stable or a dairy, as ordinarily kept, would be absolutely unendurable in proximity to human dwellings.

The decomposition of food products in the alimentary canal and the coincident production of ptomaines is one of the sources of poisons found in the tissues and in the residuum of the tissues, the urine. The amount, quality and toxic properties of the urine are almost absolutely dependent upon the dietary. A diet which gives rise to fecal matters so offensive as those of a carnivorous animal or a carnivorous man must be a prolific source of blood and tissue contamination from the absorption of these toxic and poisonous products. Evidence of this tissue poisoning is to be found in the strong odor of carnivorous animals, as well as in the strong odors of the fecal matters of this class of animals. It is also a well-known fact that the flesh of vegetarian animals becomes strong and unpalatable when these animals are fed upon flesh foods. Bouchard's researches upon this subject are extremely interesting, and entirely confirm Dr. Flint's observations as well as my own.

The point which I wish to make is that the peculiar condition established by the operation of laparotomy is favorable for the conversion of these tissue poisons into substances of a more highly toxic character, and for the development of virulent properties by the bacillus coli communis, which is always present in the alimentary canal of mammals, and also for the development of an unusual amount of toxic matters.

For the purpose of obtaining positive evidence upon this

point I decided to apply the ingenious toxicity test devised by Bouehard. This test consists of the injection of the urine to be tested into the veins of a rabbit, at the rate of about 1 c. c. per second, continuing the injection until the death of the rabbit occurs, noticing carefully meanwhile the symptoms produced during the injection, the mode in which the rabbit dies, the effect upon temperature, and the relation of the amount of urine required to produce death to the weight of the rabbit and to the weight of the patient. The result is termed the coefficient of toxicity, by which is expressed the amount of living being, in kilograms, which would be killed by the quantity of urine produced by one kilogram of the patient in twenty-four hours. This result is obtained as follows: Dividing the amount of urine required to kill the rabbit by the weight of the rabbit gives the amount of urine required to kill one kilogram of rabbit, and also the total number of urotoxies, or the number of kilograms of rabbit or of living being which would be killed by the total amount of urine produced by the patient in twenty-four hours. Dividing this result by the weight of the patient in kilograms gives the urotoxic coefficient, or the possible amount of living being killed by the urine produced by one kilogram of the patient in twenty-four hours. This test was applied in the following cases prior to abdominal second, and again the second day after the operation, with the following results:

Case 1.—Mrs. H. Removal of appendages to check the growth of a bleeding myoma. Patient did well after the operation, and showed no symptoms of shock, no febrile disturbance, no tympanitis, very little pain. The toxicity test before the operation gave a urotoxic coefficient of .46, the normal figure. After the operation the urotoxic coefficient was found to be .336, a very low coefficient, indicating diminished elimination of toxic substances in the urine.

Case 2.—Mrs. W. Laparotomy for removal of the appendages to check the development of bleeding myoma. This patient also did well after the operation; no febrile disturbance, no tympanitis, and uninterrupted progress to convalescence. The toxicity test before the operation gave a coefficient of .82. After the operation the coefficient was found to be .399. The coefficient before the operation was unusually high; after the operation, a trifle below normal.



The diminished toxicity of the urine in both cases was doubtless due to the fact that on the day following the operation food was entirely withheld. The alimentary canal being entirely empty, the production of toxins was diminished through the lessened activity of the microbes in the alimentary canal.

Case 3.—Mrs. L. In this case the patient had suffered for a number of years from frequently recurring attacks of pelvic inflammation involving both the tube and the ovaries. This patient exhibited, on the second day after the operation, a rise of temperature, the thermometer indicating  $101^{\circ}$  F. The temperature continued elevated for several days, but was controlled and a threatened peritonitis averted by the vigorous employment of saline laxatives, hot vaginal douches and other therapeutic measures. The results of the toxicity test were as follows: Before the operation the coefficient was found to be .24; after the operation, 1.08—a coefficient more than double the normal, and four times that found before the operation, indicating an enormous increase of toxins, clearly explaining the rise of temperature.

Case 4.—Mrs. C. Abdominal hysterectomy. A large multinodular bleeding myoma was removed, together with the appendages. The patient did perfectly well for the first two days following the operation. The third day after the operation this patient's temperature was  $100.4^{\circ}$  F. The abdomen was enormously distended with tympanitis, a condition which had arisen suddenly during the night. The patient was retching and vomiting mucous every few minutes. I felt much apprehension, as the symptoms were decidedly indicative of peritonitis. The patient suffered considerable pain. The facial expression was that of great depression, and there was certainly cause for anxiety.

The toxicity test in this case showed before the operation a coefficient of 1.65, an unusually high coefficient. The second day after the operation the coefficient was found to be 4.90, the highest coefficient I have ever observed. The significance of this condition of the urine, or rather of the condition of the alimentary canal which produced this extremely toxic urine, was clearly apparent the next morning, after the collection of the specimen, when the patient was found in the condition already described. Previously the patient had apparently been doing



exceedingly well, but the decomposition taking place in the alimentary canal after food was administered had overwhelmed the system with toxins which the kidneys were doing their best to eliminate. Fortunately the vigorous application of saline laxatives, soap enemas, etc., quickly relieved the patient, so that in twenty-four hours her condition was entirely changed, and she made rapid progress to a good recovery.

Case 3 illustrates the fact that marked toxemia may exist in abdominal cases without the production of any decided febrile action, either because the morbid process is not such as to give rise to fever-producing toxins, or because temperature depressing toxins may be present in sufficient quantity to neutralize the effect of toxins which might otherwise give rise to temperature elevation.

These experiments certainly show, beyond any opportunity for question, the fact that a special cause for toxemia exists after laparotomy, and it seems clear to me that they prove this cause to be associated with the condition of the alimentary canal.

I do not wish to be understood as claiming this to be a new discovery. This fact has long been recognized by Tait and his followers. The purpose of the investigation has been to place upon a scientific basis a fact which has heretofore rested solely upon clinical evidence.

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## Correspondence.

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EDITOR JOURNAL—Thinking that a few words at this time relative to quarantine measures to prevent the introduction of yellow fever into this country might be instrumental in eliciting a dispassionate discussion of one of the most important questions that today confront the Southern states, I have concluded to write you a short letter.

A few years ago it was often asserted, and by men of high standing in our profession, that yellow fever does not hibernate in any part of the United States. I think this point has been well and thoroughly established. The winter of 1897 and 1898 was so exceptionally mild that a recrudescence in the summer of 1898 may have been possible, but I doubt it. I know that the

early appearance of the fever at McHenry is in favor of the proposition of hybernation, but even here there is a possibility of the fever having been introduced from New Orleans. I think it was held by the profession in authority there that the evidence tended to show that a business house was the first in that little town to become infected. Besides, yellow fever made its appearance early in Ocean Springs in 1897, weeks and months before it was announced in New Orleans, and there is no doubt but that the fever of 1897 was of foreign importation, and many believe through New Orleans from South America. Then why not the same way in McHenry in 1898? One thing is certain—the weight of evidence is against the theory of the hybernation of yellow fever in this country. There was possibly never a colder winter in the South than the winter of 1898 and 1899, and the people and the profession felt that if it had survived the previous winter it would not survive this one. In my opinion it did not survive that terrible winter, but was again introduced.

Now, if this fever is being introduced year after year, as the evidence shows that it is, it seems to me that the fault is with maritime quarantines, and the remedy is clear.

The State Board of Health of Mississippi, upon the advice of the Legislature of 1898, abandoned her maritime quarantines, allowing the Marine Hospital service to take entire control of it; so now this board is in no way responsible for the introduction of yellow fever into this country. I think that yellow fever is liable to be introduced through any service, but we have a right to know the service through which it is introduced, and that service should be held responsible for its introduction and the evil should be corrected.

There are now in the United States thirty-four national and twenty-eight state and municipal maritime quarantines and inspection stations. Just as soon as fever makes its appearance in the United States each one of these services begins a systematic effort to shift the responsibility of its introduction from its own shoulders, and the responsible or guilty party is really never positively known. All realize how difficult it is to trace with absolute certainty the origin of yellow fever. While Mississippi has no responsibility in this matter, there is not a state in the Union more exposed to foreign importations, nor is there one that has suffered more during the last three years. This

being true, we have a right to know the degree of protection we enjoy against such importations, and, if possible, locate the station that endangers us.

I do not think the Marine Hospital service has done more effective work than the states. Dr. Porter claims, and says he will establish this claim by evidence that cannot be controverted, that the Marine Hospital service admitted yellow fever into the state of Florida three times during the year 1899. If this is true this service has clearly demonstrated its inefficiency in maritime quarantine work, and the states could never be induced willingly to surrender their maritime quarantines to this service.

The national government should organize a health department, and this department should undertake the protection of the states of the Union against the invasion of all infectious and contagious diseases from foreign countries. This department should have charge of all maritime quarantine and inspection stations. If the fever at any time should be introduced or admitted after the national government had undertaken the work the responsibility of its admittance could then be properly and correctly placed. This is a very important point. The divided responsibility that now exists, in my opinion, is largely responsible for the trouble we have had the last three years. The knowledge of an undivided responsibility would be a potent stimulant to a national health department with absolute control of maritime quarantines.

To surrender maritime quarantine to a national department of public health would insure uniformity in regulations, an important point that cannot be gained in any other way. One of the dangers that constantly threaten the South with the invasion of yellow fever is the rivalry between its ports. The port that detains vessels the shortest length of time will get the best trade. The commerce of each port brings so much pressure to bear upon its quarantine authorities that all sorts of schemes are resorted to to shorten the time of detention. National control would overcome this element of danger which all will admit is a great one.

If any one thing is known about yellow fever it is that the period of incubation may be longer than three days—that in the majority of instances it is longer than three days. Therefore a vessel should be detained longer than three days after the

completion of its fumigation. The national government requires five, and most of the states and municipalities require the same length of time, though one station, it is said, requires only three, at least for some vessels. No chain is stronger than its weakest link. If one station requires only three days detention all might as well require only the same length of time. A three days detention is practically equivalent to no detention, because in a large majority of cases the period of incubation is longer than three days. If the national government had entire control of maritime quarantine the period of detention for all quarantine stations from Maine to Mexico would be five days. A five days detention on account of yellow fever is just as important for New York as for New Orleans. The detention should always date from the completion of disinfection of the vessel. The length of time the vessel is in transit has nothing to do with its detention. If a vessel from Cuba is not detained by the New York quarantine station a passenger of that vessel can be in New Orleans or any other Southern town in forty-eight hours after the completion of the fumigation of the vessel and thus endanger the health of the entire South.

There should be uniformity in maritime quarantine regulations and in methods of fumigation and disinfection. This uniformity cannot be secured unless the entire work is in the hands of one service. It cannot be placed in the hands of one service unless that service be a national one. Give to a national department of public health entire control of maritime quarantine and uniformity in regulations, and undivided responsibility will be obtained, and in no other way can it be done.

The question might be asked, "Why not turn all maritime quarantines over to the United States Marine Hospital service?" There are many reasons why this should not be done. I will not enter into a detailed discussion of these reasons. The Marine Hospital service has demonstrated its inefficiency. The service was organized for a different purpose. Its membership is not composed of sanitarians. Their duties are two-fold. Its regulations are made by one man, and that man, at some future time, may be inimical to a section of the country most interested in maritime quarantine. Quarantine regulations for the entire country, since all classes and conditions in life are affected by



them, should be made as other laws of the nation are made, by representatives from all sections of the country.

How would I organize a public health department? Well, I believe in a republican government. I don't think that one man ought to make the laws and then execute them. I would not be particular as to details, but two things I would insist upon, and these no true American citizen can object to: Each state and territory in this great country should be represented in this department by a sanitarian. There should be an executive officer of the department who should be elected by the members of the department. It should be the duty of these sanitarians to make the laws or regulations that are now made by one man and executed by the same man.

In another letter I may discuss in detail the organization of a national department of public health and the management of yellow fever under this department if it should gain entrance into the United States.

OBSERVER.

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#### TO THE MEMBERS OF THE MEDICAL PROFESSION IN THE UNITED STATES:

The cause of humanity and of scientific progress is seriously menaced. Senator Gallinger has again introduced into Congress the bill for the "Further Prevention of Cruelty to Animals in the District of Columbia," which he has so strenuously and misguidedly advocated in the last two Congresses. It is Senate bill No. 34. Twice the committee on the District of Columbia has, also unfortunately and misguidedly, reported the bill with a favorable consideration. It is speciously drawn to seem as if it were intended only in the interest of prevention of cruelty to animals, but the real object is two-fold: 1, to prohibit vivisection, and, 2, to aid the passage of similar bills in all the state Legislatures.

It hardly needs to be pointed out that this would seriously interfere with or even absolutely stop the experimental work of the Bureau of Animal Industry and the three medical departments of the government, the army, the navy, and the Marine Hospital service. The animals themselves might well cry out to be saved from their friends. No more humane work can be done than to discover the means of the prevention of diseases which have ravaged our flocks and herds. All those who raise or own

animals, such as horses, cattle, sheep, pigs, chickens, etc., are vitally interested in the preservation of their health and the prevention of disease.

The inestimable value of these scientific researches as to the prevention and care of disease among human beings it is superfluous to point out. Modern surgery and the antitoxin treatment of diphtheria alone would justify all the vivisection ever done.

As my attention has been called officially to the introduction of the bill, I take the opportunity of appealing to the entire profession of the country to exert itself to the entire profession of the country to exert itself to the utmost to defeat this most cruel and inhuman effort to promote human and animal misery and death and to restrict scientific research. It is of the utmost importance that every physician who shall read this appeal shall immediately communicate especially with the Senators from his state, shall also invoke the aid of the Representatives from his or other districts in his state, and by vigorous personal efforts shall aid in defeating the bill.

It is especially requested also that all of the national, state and county societies, at their next meeting, take action looking toward the same end. If regular meetings are not soon to be held, special meetings should be called. Correspondence is invited from all those who can give any aid.

The committee on the District of Columbia consists of Senator James McMillan, Michigan, chairman, and Senators J. H. Gallinger, New Hampshire; H. C. Hansborough, North Dakota; R. Redfield Proctor, Vermont; J. C. Pritchard, North Carolina; Lucien Baker, Kansas; C. P. Wetmore, Rhode Island; C. J. Faulkner, West Virginia; Thomas S. Martin, Virginia; William M. Stewart, Nevada; and Richard Kenney, Delaware. Personal letters may be addressed to them or to other Senators. Petitions should be addressed to the Senate of the United States.

W. W. KEEN, M. D.,  
President American Medical Association.

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DEAR DR. FOLKES--It may seem a little early to begin to think about the program of the State Medical Association, which will meet in the city of Meridian next April. I am ver

desirous, however, that it shall be a good one, and that we shall have a large attendance of old members, a great many additions to the membership, and an all-round profitable session.

I have just had the pleasure of meeting the members of the committee of arrangements in Meridian, and a number of the other physicians there. Some of these gentlemen are not members of the association, but expect to become members at the April session. I was delighted to find all the physicians enthusiastic on the subject of the meeting of the association in their city. It is their purpose, with the assistance of the Business League, who so kindly invited us to Meridian, to give us a warm reception.

I notice in the June number of *THE JOURNAL* a criticism by Dr. H. A. Minor of the plans, procedures, etc., that hold in our association. I hope that Dr. Minor's suggestions will prove to be of value. His communication merits the consideration of the members of the association. He says: "But the most important thought that I have to suggest is that the chairman of each section shall have delivered to him, at least one month before the meeting, all the theses that pertain to his section, or an epitome or a resume thereof. That it then shall be his duty to prepare himself to lead in the discussions on the papers read." He also says: "There should be an assistant chairman for each section, whose duty should be to take his chief's place when he is absent and to prepare to lead or to assist in the discussions on the papers of his section."

While the by-laws do not make such work the duty of chairmen of sections, I think it would be well for them to prepare to lead in the discussions, so as to guarantee due consideration of all contributions presented. I do not think one month before the meeting is too early for all papers to have passed through the hands of chairmen of sections, and into the hands of the secretary, that he may have the programs printed and distributed, so that all who desire to review the subjects to be discussed may have ample time to do so.

It should be the purpose of the association to make of its transactions a volume worthy to be consulted on all it may contain.

It is a compliment to be appointed to the position of chairman of a section, because it is generally done on the standing on

a member in that branch of medicine, and upon his general reputation as a physician. As the nominating committee have made good selections in their appointment of chairmen, we may reasonably expect our next program to be one of the very best. They only need to get to work early.

We appreciate in a high degree the very valuable papers read before our association by visiting friends: they contribute largely to the success of our sessions. But should not all communications be prepared for us, and not have been presented to other associations and published in their transactions?

Now, doctor, I think, to have a large meeting, we only need to keep the subject before the members of the association.

I am pleased to notice that you have in your valuable editorial columns been calling attention to the importance of getting the subjects of papers before the membership early, in order to have them more readily and intelligently discussed. I presume that a copy of THE JOURNAL goes to each member; so tell them in each number of the fine program that we expect to have and of the excellent entertainment that is in store for us in the wide-awake city of Meridian.

ROBERT E. JONES, M. D.

Crystal Springs, Miss., Dec. 27, 1899.

\* \* \*

THE NEW ORLEANS POLYCLINIC THIRTEENTH ANNUAL SESSION OPENS NOVEMBER 20, 1899, CLOSES MAY 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, La. mar1900

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Contributors to this journal can secure reprints of their articles, in pamphlet form, at very low rates, by addressing The Biloxi Herald, Biloxi, Miss.



## Editorial.

H. M. FOLKES, M. D., . . . . . BILOXI, MISSISSIPPI,

Editor and Business Manager.

COLLABORATORS--J. R. Tackett, M. D., Meridian, Miss.; H. A. Minor, M. D., Macon, Miss.; H. H. Baralson, M. D., Vicksburg, Miss.; E. M. Holder, M. D., Memphis, Tenn.; W. A. Evans, M. D., Chicago, Ill.

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SEC. 7. Admission Cards may be issued by the officers of the Association with the obligation for the candidate's signature in the center and blank marginal spaces on the left and right margins for the signatures of the three members who recommend, and the three officers who admit the applicant to membership.

The above section was adopted in order to admit persons eligible to membership during vacation. Either of the above named officers will furnish, on application, the necessary card.

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 Dermatology and Venereal Diseases---H. M. Folkes.....Biloxi

Those intending to contribute papers in any of the sections will please send copy of same to chairman of section in which it is written so that those appointed to lead in discussion may have opportunity to prepare themselves along line written upon. This should reach the chairman not later than March 15, 1900. The names of those appointed to discuss the various papers will be announced later, as the chairmen make selections.

### THE ASSOCIATION

Meets in April at Meridian, and from present indications the prospects are that we will have one of the most successful

meetings in the history of the organization. President Jones in this issue starts the ball rolling towards realizing the fruition of these hopes. The town of Meridian is proud of the honor, the local profession are determined to make every member present have a good time, and *as excelsior* seems to be the watchword it is likely that every member will feel called upon to do his pro rata, and when this is done the banner meeting of the association is assured. Fortunately our able and efficient secretary is a resident of Meridian, and, as everyone knows, what he does will be well done; so let everybody help out and try to grace the occasion with his presence.

On the preceding page is a short notice to those intending to read papers before the association. It is earnestly requested that intending contributors take due notice and govern themselves accordingly. By being systematic we can accomplish far more than is possible by undirected action.

It is absolutely essential that we have a stenographic report of discussions and such other talk that takes place before the association, and our secretary is requested to secure one for the occasion.

\* \* \*

The bubonic plague is at Rio Janeiro, Honolulu and Manila, in addition to places previously reported, since our last issue.

Many people forget that in this day of rapid transit distance is as nothing when infected places hold extensive commercial relations with the remainder of the world. Sooner or later the disease makes its appearance at the quarantine stations, and it just simply depends upon the efficiency of these stations as to whether or not it gets through.

In another place appears an article from a gentleman who has made quite an extensive study of this subject of quarantine, and it is hoped that his letter will be read with the attention it deserves; for today we are more gravely menaced by catching disease than by any other possible danger.

In our opinion, his idea that the national government take entire control of maritime quarantine is a most excellent one, for reasons well stated in his paper. Just in what shape or by what service this should be handled is where we differ with our

correspondent. His opinion that the Marine Hospital service has made mistakes is true enough, but what health board has not? If we are not mistaken, the old national board of health went by the board on account of their laches. And so it will be until time shall be no more, that men will differ on what to them seems the correct plan. The point about it now is that the Marine Hospital service is already organized and is constantly recruiting its force with the best material in the land. It is absolutely of no consequence today that the service was originally intended to look after sick sailors. Its scope has broadened, and within the past month the energetic head has sent some of the corps to the various European ports which threaten us with some of their possible plague ships. A very wise step.

Just a word or two anent the proposed health tribunal composed of representatives from each of the states. We already are burdened with too many officials in this great country of ours. In one place our correspondent very pertinently says that divided responsibility is bad, and yet later on he says that it is wrong to place authority in the hands of any one man to take the vigorous action contemplated in the proposed Cafery bill or other such measure. Now, it strikes us that no one man does it as affairs are now administered. It is true that the secretary of the treasury is not a medical man, and might, and probably frequently does, give way to the supervising surgeon general of the Marine Hospital service in his views as to matters medical; but we may all rest assured of one fact, and that is, whoever the secretary of the treasury may be, the chances are almost nothing that he will ever do anything calculated to wilfully damage any section of our common country.

Our own view of the matter may be crystalized in a few sentences, and consists in the Marine Hospital service, uniformity of rules and regulations, national in character and covering any and all possible contingencies; enforcement of these rules and regulations by local authorities, or, if they neglect or refuse to do so, by the Marine Hospital service; a service man to always be on the scene of an epidemic or outbreak, and to advise with the local authorities, and to keep his superior thoroughly posted as to the enforcement of the law, and by so doing and being he is instantly ready to assume charge, should

circumstances arise so demanding; finally, and one of the most important considerations in the matter, the personal supervision by this official (who, by the way, should always be uniformed,) of all expenditures of service or local moneys.

A very important point in our correspondent's letter is his reference to the incubative period of yellow fever. All question of commerce should be firmly relegated to the rear, and no greed after money be permitted to give any one port a right to jeopardize the lives and interests of our people. Five days as a minimum of detention should be insisted upon.

In our possessions and such other places as may see fit to so provide themselves the installation of a fumigating outfit will materially shorten the quarantine detention, for then it can count from date of leaving port, because the vessel was disinfected before sailing.

Just one word as to Dr. Porter's claim that the Marine Hospital service has admitted fever three times this past summer. If this be true it is Dr. Porter's duty to prove it, not alone for his own sake, but because the service should have ample opportunity to remedy such defects as it may be possessed of; and this can only be brought about by recognizing the leaks.

\* \* \*

The biennial report of the Natchez hospital for the years 1898 and 1899 has come to hand. It is really remarkable what has been accomplished by the able physician in charge with the limited sum at his disposal. Total receipts for the two years were \$25,882.66, total disbursements were \$26,575.77. Of this amount the state only contributed \$17,500; Adams county, the pay ward and cash donations made up the remainder. Among the donators were Concordia and Tensas parishes, in Louisiana, the former of which contributed \$300 and the latter \$150.

In all there were admitted 5158 patients. When one comes to figure on this problem as to how they managed to do as well as they have it stands as a piece of financiering which would be creditable to the treasury department. The truth about the business is that the state should contribute at least \$15,000 annually to this very worthy institution. A rather glaring injustice is the requiring of Adams county to pay for burial of dead patients of other counties. It seems to us just



that charge be made against other counties for such service, or else let the state appropriate such amounts as above mentioned.

Our cordial congratulations are sincerely tendered to Surgeon Brown and his very efficient trustees.

A glance at the diseases treated shows that variety has not been lacking to develop to the utmost the capabilities of the medical and surgical corps.

## Abstracts and Extracts.

Treatment of hereditary syphilis by inunction of fifteen to twenty grains of the blue ointment daily, rubbed gently for twenty or thirty minutes into different parts of the body. With care eczema may be prevented by washing the part before the rubbing with hot water and adding to the ointment equal parts of carbolized vaseline. This part should not be used for inunction again for several days, in the meantime applying daily a boric acid ointment to relieve any irritation that might have occurred. This method is the most accurate and satisfactory. Another and widely adopted one is to apply one to two drachms of blue ointment to a cloth or belly band extending from the axilla to the hips and pinned closely about the child's body. Allow this to remain for two or three days, then remove and wash the parts and reapply fresh band and salve. The movements of the child and the handling of it keep up a more or less constant inunction.—*M. F. Engman, in Hot Springs Medical Journal.*

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PHLEGMONOUS INFILTRATION.—In cases of phlegmonous infiltration I favor, above all other measures, the application of an ointment composed of resorcin, 5 parts; ichthyol, 10 parts; mercurial ointment, 35 parts; lanolin, 50 parts. Under the influence of this antiseptic and sorbefacient preparation and of moist heat, one may see many phlegmonous infiltrations assume a kindlier type, and may even perhaps secure the actual absorption of pus.—*Roswell Park, in Medical Record.*

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Alcohol is undoubtedly the best antidote in all cases of carbolic poisoning, and, indeed, is an absolute antidote.

Where possible, lavage of the affected tract and stomach with alcohol should be resorted to in preference to all other methods.

Where lavage is not practicable then give alcohol or whisky, preferably the former, followed by apomorphine as an emetic.

I would urge the use of apomorphine not alone because of its prompt emetic effects, but also for its control of acute alcoholism as shown by Tompkins (see *Medical Record*, LV, No. 1, p. 56), assuming this might occur.—*J. Austin Kelly, B.S., D.V.S., M.D., in Merck's Archives.*

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According to Dr. Ed. Meyer, lupus can be contracted by using the same towels or wash rags utilized by one suffering from the disease.—*Pediatrics.*

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From an editorial in *Pediatrics* we learn that cystitis in infants is not an uncommon occurrence. Usually due to bacillus coli communis, generally follows summer diarrhoea; attention usually directed to condition by high temperature which is unaccounted for by any abnormal condition of thorax or alimentary tract. Pain on pressure over pubes, high temperature, and septic pulse, running as high as 190 at times, are the symptoms, together with heavy trace of albumen, many epithelia and pus cells and numerous clumps of the bacilli coli communis. Casts usually absent.

Treatment.—Irrigation; hydragogue diuretics; water, in shape of weak lemonade and teas. As drugs, sodium benzoate and urotropin have been very effective.

\*\*\*

Stomach digestion in infancy seems to be of subordinate importance for the assimilation of food.

We are unable to draw any positive conclusions as to the digestive function of the infant from the absence or presence of the normal products of secretion in the stomach.

The condition of the secretion of the stomach does not furnish us with a characteristic picture in the various digestive disturbances of the infant.

As positively pathological signs, only the motor insufficiency accompanied by lactic acid fermentation, extending beyond the time of normal digestion, and perhaps also the pres-

ence of volatile fatty acids, should be regarded. The authors in conclusion warn against the careless prescribing of muriatic acid, which is not even sufficiently justified, when it is based on the analyses of a test meal, without taking into consideration the other clinical symptoms.—*Pediatrics*.

\* \* \*

Tinnitus aurium is regarded by Robin and Mendel (*Memorabilien*, July, 1899,) as due to direct or reflex irritation of the auditory nerve. For its relief they recommend the fluid extract of *cimifuga racemosa*; gtt. xxx. pro die being a moderate dose. According to the observation of these authors, this drug has a sedative effect upon the aural circulation as well as upon the auditory nerve.—*Medical Record*.

\* \* \*

THE LAVERAN BODY IN BIRDS.—Examining the blood of birds, in the laboratory of the Hyderabad Medical School, E. Lawrie found the proteosoma in a very large proportion of sparrows, pigeons and crows, in 100 per cent of the latter, and his conclusions are in opposition to those of Ross and other authorities, in that he believes that they are not of parasitic origin, but simply a product of the blood. His conclusions are as stated in the following:

"1. The so-called 'halteridium' is the halter-shaped, and the so-called 'proteosoma' is the spherical shaped Laveran body in birds.

"2. No form of the Laveran body, avian or human, can be isolated or cultivated. All the known facts show that it is not a parasite, and, as it fulfills none of Koch's canons, it cannot be a pathogenic organism.

"3. Neither the plasmodium nor the proteosoma possesses the function of reproduction.

"4. Our experiments show that in birds the Laveran body, proteosoma, is a product of the blood, developed in the red blood-cell, and not producing any deterioration in the health of the bird. It cannot be reproduced by inoculation from bird to bird, and is not infective and does not multiply in the blood.

"5. Seeing that the Laveran body, the plasmodium or the proteosoma, is not a parasite, and that it cannot be reproduced by experimental inoculation, it is unlikely that it can be repro-

duced by a mosquito bite. There is no ground for supposing that the passage of the proteosoma through the mosquito, granting this to be possible, could render it infective. If it could, the cause of malaria would be the mosquito and not the 'parasite:' that is, of course, absurd.

"6. The mosquito theory of Ross, on malaria, is based on a series of assumptions and not on facts. One of these is the assumption which was originally put forward by McCallum of Baltimore, and adopted by Manson and Ross, without examination, viz.: that the flagellum is the male and the hyaline cell the female element of generation in the Laveran body in birds. Now the plasmodists say that the rosette is a sporulating body, and that the formation and liberation of spores by the rosette is the method by which the reproduction of the Laveran body is affected. Our discovery of the rosette in crow's blood proves that McCallum's assumption at all events is false, since it is evident that even if the proteosoma were a parasite, it could not be reproduced in two entirely different ways. On the other hand, the rosette is proved not to be a sporulating body in the bird's blood by the fact that its spores are considerably larger than the speck in the red cell, which is the form in which the proteosoma first appears in the blood. Another of the unwarrantable assumptions of Manson and Ross is that it is possible to infect birds with proteosoma by mosquito bites. To have made his position tenable, Ross ought first to have shown that the birds he believed he had infected with proteosoma by mosquito bites would not have got them if they had not been bitten by mosquitoes. Our experiments have clearly shown that you can never be certain that birds of the class in which proteosoma are found—such as sparrows, crows and pigeons—will not develop them spontaneously, and the manifest ignorance of Ross, on this fact, entirely vitiates his inoculation experiments, as well as the conclusions he has drawn from them."—*Journal of the American Medical Association*.

\* \* \*

NATURE OF THE GONOCOCCUS.—The author has made a systematic study of the gonococcus from all points of view. Culture experiments having been unsatisfactory, on the whole, he endeavored to improve the technic in this respect. He be-



lieves a positive result may almost invariably be obtained by using a culture medium composed of either agar or bouillon combined with some kind of human serum (blood-serum, ascitic or pleuritic fluid, etc.). He was successful in fifty consecutive cases. In cases of recent, untreated gonorrhea, he obtained pure cultures of gonococci, while in numerous cases of the disease which had been treated, and in the discharges of which the microscope failed to show any gonococci, the culture method invariably demonstrated their presence. In gleet, it may first be necessary to free the urethra from numerous saprophytes by using injections of silver nitrate, after which the gonococci, which grow at a greater depth in the mucosa, may be demonstrated. The gonococcus may be readily recognized by its form and arrangement and tinctorial qualities. In doubtful cases, the propriety of making a physiological test by inoculating the human urethra is to be questioned; and Wassermann has, perhaps, succeeded in introducing a substitute test upon animals. This author has found the white mouse especially adapted to reveal the presence of gonococci through the intra-peritoneal test. The present author has experimented upon white mice, guinea pigs and rabbits, using five different generations of gonococci, and he has found the guinea pig to be the better subject. Upon injecting a few c.cm. of an emulsion of gonococci into the peritoneal cavity, death resulted in from twenty to thirty-six hours, with characteristic post-mortem appearances. The spleen was slightly tumefied, while the peritoneal cavity contained serum or pus. In cases which perish early, the gonococci may be recovered by culture from the intra-peritoneal fluid. Injection of dead gonococci produces the same phenomena as when the living germ is used, showing that the toxins are the actual morbid agency.

If an emulsion of gonococci is injected into the veins of a rabbit, there results a rise of temperature and loss of weight. If the method of subcutaneous injection is employed, there is also some local infiltration and slight necrotic change. Attempts to inoculate the conjunctiva, vagina, etc., of these animals, have always proved fruitless, although if the gonococci are introduced into the anterior chamber of the eye, suppuration may result.

The toxic principle, which is able to produce results even in the presence of dead cultures, is not an independently secreted

toxalbumin, but rather a bacterioprotein, which is retained in the substance of the cocci as long as the latter are alive. After the death of the cultures, the filtered substance is capable of producing profuse suppurations in the human urethra.

The property of the gonococcus to settle and flourish in epithelial tissue is quite characteristic. However, the study of the past few years has shown that the gonococcus is something more than a mere epithelial parasite, but is able, in a certain percentage of cases, to give rise to metastases and genuine pyemia. It is now known that it may attack the peritoneum and pleura, the endocardium, synovia of joints, and sheath of tendons, and that it may even cause subcutaneous abscesses.—*Dr. Schultz, in the Post-Graduate.*

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## Reports of Societies.

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### Proceedings of the Memphis Medical Society at its Regular Meeting on January 16, 1900.

*As appearing in The Memphis Lancet for February.*

The president, Dr. E. C. Ellett, in the chair.

Present were Drs. R. H. Mitchell, McKinney, Barton, Crofford, Buford, Reilly, Alfred Moore, Ellett, Williams, Krauss, Griswold, F. A. Jones and Haynes.

Dr. Richmond McKinney read a paper on "The Treatment of Deviated Nasal Septa." This condition is present in 75 per cent of all cases, and is due to traumatism in infancy. The deviation may be single or sigmoid, and affect the cartilage, bone, or both. Symptoms are usually due to deflection of the cartilaginous portion. The Asch operation is preferred, and was described. Briefly the operation consists in making cross cuts through the septum, freely mobilizing the fragments and holding them in place by tubular splints till healed—i. e., about five weeks or more. The writer prefers to use local anesthesia, and in five cases has had four good results.

Dr. F. A. Jones saw two of Dr. McKinney's cases, one being very bad, the nasal obstruction interfering a good deal with the patient's health, which was much improved by the operation.

Dr. G. G. Buford asked if adenoids and other causes of nasal obstruction might not cause deflection of the septum.

The president has had some experience with the Asch operation, and more with the older methods of operating, which he found unsatisfactory. Trimming off the convexity of the septum does not as a rule restore nasal breathing. He has recently removed the whole inferior turbinated body from the obstructed side of a patient who declined the Asch operation, and the result was very good. Thorner has recently called attention to the fact that not only is breathing restored, but often a crooked nose is made straight by putting the septum back in the median line. As regards the anesthetic, general anesthesia permits free manipulation and a more thorough operation, and he prefers it in all nasal operations as severe as this.

Dr. McKinney said that adenoids, etc., might act as a cause of deflected septum. He has found cocain anesthesia satisfactory, and it is easier to operate with the patient sitting up and assisting your efforts.

Dr. F. A. Jones read a paper on "Rectal Lesions as Seen in the Negro." Mathews says that hemorrhoids are rare in the negro, but the writer finds them very common and more aggravated, as a rule, than in the white. The negro eats a diet which taxes his digestive apparatus, produces congestion and therefore hemorrhoids. Stricture of the rectum is common and usually syphilitic. In twenty-one cases, twenty were in females, and the one in the male malignant. Surgical treatment is the only one of value in strictures. Fistula in ano is common in negro men, and usually occurs in tubercular subjects. Pruritus ani and seat worms are common. The latter may cause vulvo-vaginitis. Proctitis and chronic diarrhea are common. Colitis is rare.

Dr. J. L. Barton asked if cancer of the uterus was seen in the negro or mulatto. He had not seen it in the former.

Dr. T. J. Crofford said in the last three weeks he had seen three cases of cancer of the uterus in negro women, and each year sees two or three.

Dr. W. C. Griswold has had a similar experience, and thinks cancer and other tumors and hemorrhoids common in the negro.

Dr. J. H. Reilly thinks the experience of these gentlemen should be put on record, as it is at variance with that of other observers.

Dr. G. G. Buford has seen cancer of the uterus frequently in negro women. In his pension work he has examined 3000 or 4000 negro men and has seen very many cases of hemorrhoids, but only three or four of rectal stricture. The applicants are old, and possibly those with stricture do not live to be old.

Dr. Alfred Moore asked if the diagnoses in the cases thought to be malignant had been verified with the microscope.

Dr. Crofford relies, in cancer of the uterus, on the clinical and microscopic features for diagnosis. In late cases degenerative changes obscure the histologic picture.

Dr. Jones agrees with Dr. Crofford on this point.

Dr. J. H. Reilly mentioned a case in which a diagnosis of cancer of the cervix was made and operation advised, and the microscope showed the changes to be degenerative only. The value of reports is enhanced by including microscopic findings.

Dr. Crofford mentioned an opposite case, where a growth pronounced benign by a competent microscopist turned out to be malignant.

Dr. Buford presented photographs of a case of elephantiasis of the scrotum. (To be published in *The Memphis Lancet*.)

Dr. R. H. Mitchell reported a case of puerperal eclampsia. The patient was a primipara, aged 16, and had been delivered by a midwife. He saw her after the child was born, placenta undelivered and the patient in convulsions. Chloroform was used to arrest the convulsions, twenty grains of chloral and ten drops of veratrum viride and two drops of croton oil given. Hypodermoclysis was also used. The patient had a small, hard, rapid pulse, and bleeding was therefore not advisable. The kidneys were inactive. Diaphoresis was induced, and the bowels moved from the croton oil and salts, but the convulsions were not arrested, and the patient died in fifty-six hours. This is the second fatal case he has seen in two months. The mortality is 20 to 30 per cent.

Dr. Barton has seen some cases occurring ante-partum and relieved by inducing labor.

Dr. Buford has seen three cases, all of which were bled and all recovered. In some cases this was the only treatment used.

Dr. Reilly has recently seen a case occurring at the seventh month of pregnancy. In spite of bleeding, saline transfusion and the induction of labor, the woman died.



# The Journal

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## Mississippi State Medical Association.

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VOL. III.

MARCH, 1900.

No. 12

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### Original Articles.

#### Urinalysis. \*

By W. R. NEVILLE, PH. D., AUSTIN, TEXAS.

The subject chosen is one that the practitioner is called upon to face frequently (in some localities and instances it is of daily occurrence), but to correctly diagnose and differentiate is another thing.

Ordinarily, upon the examination of a patient where kidney trouble is suspected, it has been the usual custom to secure a small portion of the urine passed at that time, or, again, it may be a sample passed either before retiring or upon rising; it is then taken to the office and usually the old method of examining for albumen and sugar, the former by the heat and nitric acid test and the latter by Fehling's or Trommer's. In the former instance, unless the urine is heavily loaded with albumen and the acid coagulates and the heat precipitates it immediately, the diagnosis is usually formed at once, when it is clearly proven by the majority of works on this subject, in-

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\* Read at meeting of the Austin District Medical Association, December 21, 1899, Austin, Texas.

cluding Purdy, Tyson, Stern, Yarbrough and others that after testing, the urine should be allowed to stand several hours.

After a careful study of this subject, and making hundreds of examinations, I am of the firm opinion that to examine urine properly, a specimen should be obtained from all the urine passed in twenty-four hours; my authority for saying this, outside of the authors quoted above, has been from personal observation in examining specimens taken from the same patient at various hours of the day. For example, will cite a late case, which was examined as morning urine and after the most rigid test, and allowing to stand the proper time, no trace of albumen was found. Then later in the day sample from same patient showed albumen very soon after applying the test.

All physicians may not be prepared to make as thorough an examination as the case demands, even should time permit. The real busy practitioner has not the time to make examinations as they should be; it is frequently inconvenient to test the urine when received, and sometimes a day or two passes before he thinks of it.

It is useless to take up your time in this paper, calling your attention to the color, acidity, normal and abnormal constituents, but will pass on to the more important test. The specific gravity is taken to ascertain the relative amount of solids contained in the urine, and here is an important point—the urinometers on the market are of various makes and tested at various temperatures. Some mark them to examine the urine at 60 degrees, others at 70 degrees and 75 degrees, and they accompany the urinometer with a thermometer to take the temperature. As a usual thing the urinometer reads from 0 to 50 or 60, the reading of urine. Showing a gravity of 20 by urinometer would be read as 1020, water, 1000.

If the amount of urine received is small and it is necessary to examine at once and not wait for another sample, it may be diluted with one or two volumes of water, carefully measured, and the "specific gravity" of this dilution taken. The figures as read from the urinometer must then be multiplied by the number of volumes of water used, plus one. For example, we have one-half ounce of urine and have to dilute it to two ounces to get the specific gravity, which is found to be 1006. We have used one and one-half ounces of water or three volumes of

water to one of urine ; now multiply the six by the number of volumes of water plus one and add to the amount 1000, which will give 1024, the specific gravity desired.

Amongst the normal constituents, examined for are "uric acid," by the murexide test, reagent nitric acid and dilute ammonia ; mucin is detected by acetic acid and liquor iodine comp. Hippuric acid, reagent nitric acid ; sulphates, test by barium chloride solution. Until recently the proteines occurring in the urine were all classed as albumen. There are at least six proteine substances which may appear in the urine, each of different significance ; the one interesting used mostly is serum albumen.

Serum albumen occurs in urine mostly with paraglobules and in minute quantities one per cent to two per cent by actual weight. The appearance of albumen in the urine does not indicate renal changes (but may be traced to albuminous foods) unless accompanied by cast, epithelium, etc.

Detection of albumen may be made by heat. Add a few drops of acetic acid to test tube two-thirds full ; boil upper part of urine ; if it looks turbid where heated, let it cool, afterwards add a few drops nitric acid, if turbidity remains or increases albumen is present.

Place about two drachms of suspected urine in test tube and boil ; if precipitate occurs it is due to albumen or earthy phosphates. To differentiate add a few drops of nitric acid. If precipitate disappears it is due to presence of earthy phosphates (test for same with the magnesium fluid, which will be given later). See addendum. If it remains it is caused by albumen.

Heller's test is to place an inch of nitric acid in test tube and drop the same amount of urine, drop by drop, along the side of the tube. This is necessary, as the urine must lay on the top of the acid and not mix ; notice opalescent zone at point of contact. If small traces of albumen are present, it may take one-half to three-fourths hour before the ring appears. If mucin be present in excess a light turbidity may appear near the surface when this test is applied.

Purdy's test: Raise the specific gravity of urine ten to fifteen degrees by addition of chloride solution, fill test tube two-thirds full, add one or two drops strong acetic acid and boil

upper part of urine half a minute. If albumen be present it will appear in the upper boiled portion and the lower portion will remain clear.

The Ferrocyanide test is very similar to Prof. Elliott's (of Chicago) modified test, which is prepared with

Iodide potassium.....	3.32 grains.
Bi-chloride mercury.....	1.35 grains.
Acetic acid.....	20 c. c.
Distilled water.....	64 c. c.

Dissolve the potassium and mercury separately in water, mix the solution, then add acetic acid and filter. Fill test tube half full of urine, add five to ten drops of acetic acid and one drachm of the reagent. If albumen be present in the smallest amount, a precipitate will occur. If precipitate occurs—heat if caused by peptons—it will disappear or diminish. If by serum albumen, or by mucin, it will remain unaltered or will be intensified.

Esbach's picric acid method is used mostly as a percentage test. His solution is prepared by dissolving one gram. picric acid, two grams. citric acid in 100 grams. of water, using a graduating test tube, which is filled half urine, half reagent, and mixed thoroughly, allowed to stand twenty-four hours and the precipitate is read in percentage instead of grammes.

Peptons often occur in combination with albuminose and closely resemble; differentiate, peptons, gives no precipitate with nitric acid is not precipitated with ammonium sulphate, while albuminose is precipitated. Saturate slightly acidified urine with ammonia sulphate and filter out any precipitate which may consist of albumen, globuline and albuminose. Proteines remaining may be precipitated by potassa mercuric iodide and can be only pepton.

"Dextrose," "Glucose," "grape sugar," occurs in urine as a result of temporary condition. As a general rule, the urine has high specific gravity. Whenever urine shows a specific gravity above 1028, should be tested for dextrose—which may be done by Boettgart's bismuth test, "liq. potassa and sub nit bismuth." The albumen should always be removed before applying the test. (It is claimed that certain medicine, viz.: turpentine, capabia, will turn the bismuth black.) We then have recourse to Fehling's, which should always be prepared



fresh. We have also Trommer's, the picric acid and others—but Haine's is the most reliable, even surpassing the yeast or fermentive. There is one thing to be borne in mind in testing for dextrose with any test, that is, we may so easily be mistaken and should bear in mind that nitric acid will not dissolve sugar, but other sediment that is sometimes taken for sugar. We should always have a weak solution of honey or glucose to try, for show up, as a correspondent test. One drop of honey or glucose in eight ounces of water will give a marked reaction with Haine's test.

Phenal hydrazin test is one used microscopically. It is said that this test is trustworthy and can be highly recommended as it gives no reaction with any other substance of the urine than grape sugar. It is a very difficult test to make and requires from two to three hours to complete. The yeast test requires over twenty-four hours to complete and the temperature to be maintained at 80 degrees and two separate samples of same urine. Dr. Whitney, of New York, has adopted a volumetric test for sugar which is a modification and addition of Fehling's and said to be accurate and simple except so far as making this solution, which, by the way, can be bought.

Acetone in the urine may be detected by Chantaid's test or Leiben's test. Pus in urine is increased by heat; acid dissolves the phosphates and increases the turbidity. Bile and biliary acids are detected by Pettenkofe's test—"conc. sul. acid and cane sugar."

The microscope is a valuable adjunct in urinalysis and this can never be called complete, unless the sediments are examined. The sediments are usually obtained by allowing the urine to settle or by means of centrifuge. The necessary technique can only be acquired by practical instructions.

Urinary sediments may be divided into two classes—chemical bodies, and anatomical bodies, viz.: uric acid, acid urate of soda, potassium and lime, calcium oxalate, calcium sulphate, etc. Triple phosphates—phosphate calcium, ammonia Leucæin, tryptin, etc.

Anatomical bodies consist of or contain blood, pus, epithelial cells, cast, fungi, bacteria and spermatozoa, and at some certain time it may be necessary to examine for one or more of these articles in urine to complete a diagnosis. On one occasion

I was employed by a lawyer to examine a specimen of urine with instructions to examine carefully and thoroughly, and I found, amongst other things, spermatozoa. Fortunately I was not called into court, but think the case in question went through the courts.

It is necessary in testing urine to be sure all your reagents are pure, as usually those found in the majority of drug stores, the solutions and chemicals, are not to be relied upon. I am now using, and have been for some time, solutions made from Merck's C. P. chemicals, and I find upon close investigation he has two or three grades, and I only use chemical pure guaranteed reagent and obtain better results.

In studying the different reaction of the various tests, I have come across instances in testing for sugar where the yeast test was used. It failed to ferment, which I ascertained was due to certain internal medicines that had been administered—quinine and salol. Salicylic acid and salicylate of soda, when taken for several days, will arrest fermentation, and though sugar may be present it will not show unless the aqua sapperina (Wiltan's) is used. Eilrich's diazo reaction, introduced in 1882, as a test for typhoid fever has not proved successful in my hands. If it becomes necessary to send away a sample of urine for examination or keep for several days it will be best to add a preservative to it, and the best thing I know of is thymol, as it does not interfere with any other constituent of the urine.

ADDENDUM.—Formula for magnesia fluid for testing for earthy phosphates:

R	Liquor ammonia.....	1 part.
	Ammonia chloride.....	1 part.
	Magnesia sulphate.....	1 part.
	Distilled water.....	8 parts.
M.		

Filter off the precipitated earthy phosphates (precipitated by the addition of sodium, potassium and heat,) and add to the filtered urine one-third its volume of the reagent snowy deposits precipitated alkaline phosphates. Examined under the microscope will show most beautiful crystals.—*Texas Medical Journal*.

### **Efficacy of Certain Remedies in Skin Diseases.**

By C. H. POWELL, A.M., M.D., St Louis, Mo.

Diseases of the skin are legion. In deciding upon the remedy or class of drugs to use to obtain the best results in a given case, the first essential requisite is a knowledge of the nature of the disturbance; in other words, as in every other line of medical practice, an intelligent diagnosis of the cause is essential. Disturbances of the skin may depend upon vascular, neurotic, parasitic, chemical and mechanical causes, in connection with deranged function of almost any organ or set of organs of the body. Thus the eruption of iodism and argyrosis requires an entirely different plan of treatment than a simple urticaria, or the secondary manifestation of an acquired lues. Again, the indications in the successful management of a simple herpes are radically different from the therapy of scabies; the treatment of acne vulgaris and furunculosis requires an entirely different class of drugs.

It is therefore obvious that an appreciation of the true nature of a given case is imperative upon every medical man to bring about a cure of the patient.

The intention of this article is to call attention in a general way to the course of treatment usually followed by physicians with practical results in the usual run of dermatological cases. At the head of all drugs in general use as a local application I place sulphur. On account of its germicidal action, it is of benefit in destroying the cocci, in many instances the causative agencies of the case; for the same reason, wherever abrasion of the skin exists from other causes, sulphur not only acts as a protecting agent from atmospheric influence, but prevents micro-organisms from gaining entrance to the exposed area. This drug also acts with remarkable benefit when given internally. The beneficial results obtained from the use of ichthyol, or its later sister preparation, ichthalbin, are largely attributable to the sulphur contained in them. Next to sulphur comes resorcin, practically a new remedy, which is just beginning to assert its influence in the field of rational therapeutics. Its beneficial influence is most markedly apparent in eczemas, especially eczema seborrhoicum; when resorcin is combined with alcohol, in the proportion of two drachms to four fluid ounces, respectively, and applied thoroughly to the scalp by means of a dropper, the cure

of this troublesome scalp affection will be thorough and satisfactory. Zinc oxide maintains its place in the general use of agents in skin work; but outside of its powerful protective and gentle astringent influence it has few other properties to recommend its use. Chrysophanic acid, in the proportion of ten or twenty grains to the ounce of petrolatum or wool-fat, is an excellent drug in the treatment of certain forms of tetter. The local application of sodium bicarbonate in solution, to which carbolic acid is added, makes a favorite preparation with many physicians as an application to wheals and other superficial elevations on the skin attended with incessant itching. Goulard's solution in the treatment, especially, of inflamed areas such as occur in rhus poisoning and erysipelatous inflammation is highly extolled. Attention has been called to the efficacy of sweet spirits of niter in the treatment of rhus poisoning. Having used this preparation in such cases, I can speak for its usefulness. It has the power of promptly alleviating the incessant burning sensations, and at once places the patient in a condition of ease and satisfaction.

One of the most annoying diseases that confront the physician is infection of the tips of the fingers, in cases of eczema seborrhoicum from the patient's scratching the scalp, and thereby carrying the infection to the finger tips, where the specific germ, finding a fissure, insinuates itself, giving rise to the cases designated as tetter. In the treatment of this troublesome condition there is no remedy at our command more effective than sulphur, twenty grains to the ounce of lard; but in order to obtain satisfactory results the remedy should be freely applied to the infected finger. Having done this at bedtime, a rag should be wrapped around the finger to prevent the remedy from being removed during sleep. A few days' treatment in this manner will cure most thoroughly any case of tetter.

A very annoying sequela of acute diseases, especially of gripe, is furunculosis. In the treatment of this skin disturbance an early incision, followed by the local application of cloths wrung out in carbolic acid solution, at the same time giving internally ichthalbin in 2 or 3 grn. doses three or four times daily, will produce the most marked beneficial results.

Many diseases of the skin depend for their presence upon a constitutional dyscrasia, and in such cases only the treatment of



the disease will offer the least prospect of relief. Thus, in Addison's disease of the suprarenal capsules, the characteristic bronzing is a familiar spectacle, and as this trouble is generally of an incurable nature but little benefit can be expected. Then again we observe, in particular in the colored race, the disease known as leucoderma; on account of this particular trouble being likewise associated with organic lesions of internal organs, it is almost an impossibility to check its progress.

Of all the varied skin diseases, however, there is none that offers more difficulties or more stoutly resists the different therapeutic agents usually employed than psoriasis. This peculiar disease is often attributed to the uric acid diathesis; it is supposed that the sharp crystals of uric acid act mechanically by irritating the skin, especially as psoriasis in its most stubborn form is generally found in the aged, and those who suffer from rheumatic or gouty disturbances. Attention has been directed during the last few years to the thyroid gland of the sheep as an effective agent in the treatment of psoriasis, and experiments have demonstrated over and over again the fact that benefit, in a great many instances pronounced in results, accrues from the use of thyroid extract. Thyraden and iodothyrene are two of the preparations used by physicians addicted to the thyroid therapy.

As a very large number of skin troubles depend upon a depraved state of the blood characterized by a lack of nutritious material, especially hemoglobin, or an excess of constituents as found in the plethoric individual, the indications for treatment of one or the other conditions at once suggest themselves. In the first case, the need of replenishing agents is necessary, such as food, iron, arsenic, and the correction of gastro-intestinal derangements. In the second place, depletants and regulation of diet are in order. Under this head the varied salines come into use. Bleeding is also advisable in a certain proportion of cases, used circumspectly. Where the subject is the victim of corpulency it is all the more necessary to have due regard for an excess of food, and the use of sweets should be positively interdicted. Crystalline and saccharin take the place of sugar, and, having the inherent property of requiring the smallest quantity to give the desired results, supply much needed articles in the treatment of these subjects.

There is one class of cases that confronts every medical man

in his daily work, and that is the condition known as pruritus vulvæ. It is highly important here to search carefully for the cause, and give that the treatment indicated. Thus, in the one case the distressing affection is attributable to diabetes mellitus, which is a not uncommon cause; hence it is well to bear in mind the importance of a careful urinalysis in these cases. In another instance specific infection will be present, and the indications for a cure be determined by attention to the gonorrheal or chancreoidal or other apparent cause. For temporary use in these cases, so far as the skin is concerned, no agent is superior to a lotion of carbolic acid, 5 grn. to the ounce, or an ointment containing 5 grn. to the ounce of cocaine, and zinc oxide, with adeps benzoïnatus freely applied to the affected region.

As to the therapeutic properties of internal agents, Fowler's solution and Donovan's solution take first rank, the latter being especially valuable in the treatment of acne vulgaris and in certain forms of chronic dermatitis. As to local therapy in cases of acne, the opening of each pustule and subsequent expressage of the contents, followed by the free bathing of the face with corrosive sublimate in hot water night and morning, will bring about the best results.

There are scores and scores of other skin diseases that from time to time appear before the physician, but in my experience, covering over a half score years, the remedies here outlined will cover almost every case. In spite of the brilliant results obtained in most cases, every physician occasionally meets with certain isolated cases that resist every manner of remedies, and hence no drug or other remedy can be called a certain specific for every subject. Nevertheless, the universal success that falls to the lot of the majority of our general practitioners in dermatological cases certainly establishes the utility of the aforementioned remedies as effective agents in the Pharmacopœia.—*Merck's Archives.*

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### Treatment of Fermental Diarrhea.

Morse (*Boston Medical and Surgical Journal*, 1899, Aug. 3,) in an article on the "Acute Diarrheas of Infancy," says, in discussing the treatment of fermental diarrhea, the first indication for treatment is to remove the cause, namely, the micro-organ-

isms and their toxic products. In mild cases a purge is often all that is necessary. Castor oil is perhaps the most satisfactory when there is no vomiting, although calomel is applicable in all cases, and is altogether the best when there is vomiting. A purge is always necessary, as it is the only way in which the small intestine can be reached. In the severe cases and in all cases where vomiting is an important symptom, it is advisable to wash out the stomach. This is a simple procedure in infants, causing them but little discomfort or exhaustion. An ordinary soft-rubber catheter makes a very satisfactory stomach tube, especially if the tip is snipped off and rounded by heat. Normal salt solution, or a solution of borax or bicarbonate of soda are somewhat better than plain water. If thirst is a prominent symptom it is well to leave a few ounces of water in the stomach. In the more severe cases it is also advisable to wash out the lower bowel. This is done by passing a rather large soft-rubber catheter, with the end prepared as for washing out the stomach, high into the bowel. Several quarts of liquid from a fountain syringe, not more than three feet above the patient, should be allowed to run in and out. The same solution may be used here as for washing out the stomach. The importance of thoroughly emptying the alimentary tract from both above and below, as well as by purging, can hardly be overestimated.

Unfortunately, it is impossible by the methods detailed above to entirely rid the alimentary tract of bacteria. Enough remain, if the conditions are favorable for their multiplication, to keep up or cause a recurrence of the trouble. The condition most favorable for their multiplication is the presence in the intestine of a suitable culture medium. This medium enters the intestine only through the mouth. Hence the next indication for treatment is to prevent the ingestion of any food which will provide such a suitable culture medium. For this reason it is best to cut off all food for at least twenty-four hours, giving only sterile water. The brilliant results claimed for barley water and rice water in the treatment of the early stages of these cases are probably due to the fact that they contain so little beside water that their use amounts practically to starvation.

Unfortunately, again, temporary starvation rarely suffices to diminish the number of bacteria to such an extent that they cannot cause trouble. The patient, however, demands and must

have nourishment. The problem is to give it in the least harmful form. This is, of course, the form most unsuitable for the growth of the micro-organisms causing the trouble. The odor of the stools, as being characteristic of acid fermentation or albuminoid decomposition, would seem to offer some means of assistance. Unfortunately, this distinction is rarely possible or reliable except in the case of very sour stools. Here an albuminoid diet, with an almost complete exclusion of sugar, is indicated, and gives satisfactory clinical results. In the majority of cases, however, the process seems to be a more complex one, and there is no indication for or against any special element of the food. It must, therefore, be selected on general principles. Foods which are principally digested and absorbed high up in the alimentary tract seem, for a time at least, most suitable. I have found albumin water, or somatose, given in ten or fifteen-grain doses in water most satisfactory.

There seems to be a very general feeling that milk in any form is unsuitable for these cases, on the ground that the pathogenic micro-organisms are usually originally introduced in the milk, and therefore should thrive better in it than in any other medium. The usual custom seems to be to employ some form of starchy food. I cannot see why, however, if starchy food is bad for a well baby, it should be any less bad for a sick baby. I feel that the favorable results obtained from the use of these foods in these diseases are to be explained by the weakness of the foods. It is to their dilution that they owe their success. I certainly have every reason to be satisfied with the results obtained by feeding these cases with dilute milk mixtures after the initial period of starvation.

After the preliminary period of complete or partial starvation, therefore, the child should be given a mixture prepared from fresh milk, low in all percentages, highly alkaline and pasteurized. It is better to give small amounts frequently than large at long intervals. Experience only can teach just what percentages are to be given in individual cases. In general, the percentage of sugar may be comparatively high, while that of the proteids must be comparatively low. The fundamental principle, however, is to give a dilute food. As the patient improves the percentages may be increased, together or singly, and the intervals of feeding lengthened until the strength and intervals



suitable for a normal infant of the given age are reached.

As already stated, the first indication for treatment is to remove the cause. After a considerable and varied experience with many drugs, including many of the newer preparations, the author has discarded all but bismuth. This is best given as the subgallate. The subnitrate is almost as satisfactory. Either to be of much use must be given in considerable doses, not less than one or two drachms in twenty-four hours.

Certain special symptoms due to toxic absorption may require special treatment in addition to that for the removal of the cause. Excessive vomiting is best treated by stomach washing, and hyperpyrexia by cold bathing or packs. Extreme restlessness usually yields to bromides, but morphine may be necessary. If it is used it is best given subcutaneously. Prostration and collapse require stimulation along the usual lines. Brandy and strychnia are most useful, and must often be given under the skin.—*Pediatrics*.

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## Editorial.

H. M. FOLKES, M. D., . . . . . BILOXI, MISSISSIPPI,  
Editor and Business Manager.

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SEC. 7. Admission Cards may be issued by the officers of the Association with the obligation for the candidate's signature in the center and blank marginal spaces on the left and right margins for the signatures of the three members who recommend, and the three officers who admit the applicant to membership.

The above section was adopted in order to admit persons eligible to membership during vacation. Either of the above named officers will furnish, on application, the necessary card.

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Those intending to contribute papers in any of the sections will please send copy of same to chairman of section in which it is written so that those appointed to lead in discussion may have opportunity to prepare themselves along line written upon. This should reach the chairman not later than March 15, 1900. The names of those appointed to discuss the various papers will be announced later, as the chairmen make selections

### AS TO LIBRARIES.

In our state we have not a single medical library, as such. The reason, of course, lies in the fact that we have no really

large towns in the commonwealth. This is of no consequence if one had but stopped to think, for a first-class medical library could have been started years ago by being made a part of our great state library, which is now one of the finest in the United States. If our State Medical Association had just utilized its annual transactions and those received as exchanges as a nucleus, forming part of the state library, not many years would have gone by without substantial additions being made to it by legacy, etc., from medical men, not alone from our own state, but from all parts of the Union.

As a starter let us have such a plan for the Meridian meeting of the association in April.

\* \* \*

Governor Longino has shown his approval of the State Board of Health as last year constituted by reappointing two of its former members, Drs. Gully and Green, out of the seven appointments made by himself. With these two members the old board has a majority, as the same five were re-elected by the association, excepting Dr. Quin. The new appointees are each and every one able and conscientious men and reflect great credit upon the Governor for most judicious selections. The board organized by electing Dr. Gant president and Dr. Hunter secretary. It is our opinion that no state in the Union has more honest, efficient and worthy executive officers than these two men, who have been tried and not found wanting. It is and should be a source of great pride to both of them that they have been so fully endorsed by the state for past official action.

We sincerely hope that the "sanitary path" will for them cease to be via dolorosa and will under their able guidance bloom forth into being what it really should be—a beacon of health and prosperity. There is a very wide field for our new board, and we sincerely trust that they will not consider that they are simply elected to cope with epidemics. Their highest function is to prevent disease, and all possible means should be adopted to this end. Licht, mere licht.

\* \* \*

It seems that some enterprising citizens have been counterfeiting aristol, phenacetine and other preparations of the Ear-

benfabriken of Elberfeld Company. So these chemists ask that we warn our professional men in this section to be sure that the drug called for is supplied when their prescriptions are dispensed.

\* \* \*

Our new State Board of Health began operations by electing Dr. H. A. Gant, of Water Valley, president, and Dr. J. F. Hunter, of Jackson, secretary, and an executive committee of three, consisting of the above two and Dr. H. S. Gully, of Meridian. If this beginning is an earnest of their future work, then indeed may the profession feel proud of our board, for without any possible doubt Dr. Gant is the best equipped man in the state for the responsible position to which he has been elected; sonscientious, conservative, brave, broad, talented, experienced, and finally, with a full knowledge of the existing status of affairs throughout the entire state. Of Dr. Hunter nothing further need be said than to point to his past record which stands for everything that a conscientious official should represent. Our secretary's whole career has been a series of brilliant successes against most able and determined opposition. Dr. Gully stands for the best interests of the entire state and may always be counted upon to come up on the right side of every proposition. One can always tie to Gully and feel safe.

\* \* \*

We again urge all members of the association to do all in their power to make the Meridian meeting the most successful in the history of the organization. We should be constantly on the go after new members and new life. If all of us would only bring one new member each session, how quickly the association would grow, and yet it seems an easy matter to find just one new doctor in a year's time. We owe it to ourselves to see that our family circle is fully abreast of like bodies in the various states, and to accomplish this end necessitates unceasing, unending effort. No spasmodic attempts ever result in permanent good, but with all of us with our shoulders constantly to the wheel we may hope to accomplish something.

\* \* \*

Dr. Gant has been nearly at death's door with an attack of pneumonia, but we are pleased to state that he is now on the road to recovery.



#### HOW TO SECURE SAFE AND SUCCESSFUL VACCINATION.

"A number of methods have been used in vaccinating—the following being one of the simplest and most successful:

Cleanse the site of inoculation with soap and water, and carefully dry.

(Do not use bichloride solution, carbolic acid, or any other disinfectant, unless there are special reasons for doing so—in which case all traces of such disinfectant should be removed with sterilized water before vaccinating.)

Take the small rubber bulb in the left hand, with the neck of the bulb pointing to the left. One of the sealed glass tubes held in the right hand is inserted into the opening in the top or rounded end of the bulb, and, with a slight rotary motion, pushed through until the bulb is impaled and resting at about the center of the tube. The end of the tube to the right is then broken off and the tube pushed on through until the open end is well within the cavity of the bulb. Now break off the other end of the tube, and lay the tube aside until the site is scarified.

Scarify a single small area—say about one-quarter or one-third of an inch in diameter—using for this purpose almost any sterile steel instrument, such as a needle, scalpel, or one of the many instruments especially designed for this work.

To apply the vaccine, hold the bulb between the thumb and second finger, the tip of the index finger covering the air-hole at the top, when slight pressure upon the bulb will force the vaccine out upon the scarified area. The vaccine should then be rubbed in thoroughly with the flat side of the instrument, with an occasional slight scratching or pricking with the point, in order to facilitate penetration and absorption.

Ample time should be given for the lymph to dry, and the clothing should never be replaced until the site presents a glazed or varnished appearance. No dressing is required except in cases where very rough or dirty under-garments are worn, and then a piece of clean, soft linen or cotton is the most suitable.

#### A FEW DON'TS FOR THE OPERATOR.

1. Don't prepare the site by washing with antiseptic solutions. Or if this is thought necessary—
2. Don't fail to rinse thoroughly with sterilized (boiled) water, and dry.

3. Don't draw blood if you can help it. A gentle oozing of serum gives much better results.

4. Don't fail to rub the vaccine thoroughly and persistently into the abrasion.

5. Don't replace the clothing until the vaccine is thoroughly dry.

6. Don't apply antiseptic dressings. (Many of our most successful vaccinators never use any dressing except in cases where there is danger of infection from the environment or uncleanness of the patient.

7. Don't expose vaccine to extremes of temperature. High temperatures spoil it.

8. Don't expect to find a swollen arm, indurated glands, high fever and a suppurating ulcer—these belong to the old-fashioned means and methods of vaccinating.

9. Don't accept the word of the patient or parent as to the success or failure of the process. Examine the case yourself, and if you find a typical vesicle—or the remains of one or more that may have been ruptured and emptied—assure the patient that he is protected against small-pox.

10. Don't be in a hurry about passing judgment upon a "take." Sometimes the vesicles are delayed in their development."

In view of the small-pox prevalence, we publish the above with our approval.

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## Abstracts and Extracts.

---

POTASSIUM IODIDE has long been used in the treatment of *lead-poisoning*, sometimes successfully and at other times with anything but brilliant results. Dr. J. Gordon Sharp (*Lancet*, No. 3969, p. 828), of Leeds, Eng., in explaining the cause of these contradictory results, states that physiological experiment teaches that potassium iodide is rapidly eliminated by many channels, and chemistry proves that lead iodide is comparatively soluble at the body temperature. What more natural conclusion, then, that for the elimination of the lead poison we should employ the iodide. During twelve months' experience of an epidemic of

chronic lead-poisoning due to the using of soft water, the author tried this remedy extensively, but had to give up its use because of the frequency with which it aroused all the old symptoms of colic and muscular and joint pains. This shows that the apparent dictates of science must be studied in the broad light of practical experience. Science does not err, but we err in the interpretation of her teaching, and in the present instance we err in taking too limited a view of the laws governing the elimination of lead-poison. A short review of the progress of lead-poisoning helps us to understand this. When lead is introduced into the body in dilute solution, as in drinking-water, for a time no symptoms supervene, because the alimentary tract casts the poison nearly all off as an insoluble organic compound. But it is not all passed out: a little is absorbed in the form of a soluble albuminate of lead which circulates in the tissues, and in turn is passed off by the kidneys and largely by the bowels. In time the tissues become exhausted and instead of a soluble albuminate we find an insoluble albuminate which is stored up in the tissues. The intestinal tissues suffer especially and now the symptoms become severe. If no more of the poison is injected the tissues regain their power and particle by particle the insoluble lead albuminate is changed into a soluble albuminate, which passes off by the kidney and in great part by the bowels. When the poison reaches the bowel it is changed into an insoluble sulphur compound. Now if the bowels be kept open, preferably by a sulphate aperient, elimination proceeds at a rate which does not disturb the equilibrium. However, if, instead of watching nature, we step in and try to take her place, as in exhibiting potassium iodide, we run the risk of causing a too rapid elimination and the poison reaches the bowel in larger amount than that organ is able to cope with, and the result is a re-absorption of the lead and a second deposition in the tissues with the former distressing symptoms. Potassium iodide, then, must be employed with caution. The treatment found most useful consisted in giving a mixture of Epsom salts with tincture of opium, tincture of ginger, and chloroform water until the acute symptoms passed off, when the patient was instructed to take a dose of Epsom salts twice a week and to suck an orange or lemon every day in addition to the preventive measures. Magnesium sulphate acts beneficially in lead-poisoning in two ways: (1) by clearing the bowels

and so aiding elimination; and (2) by supplying the sulphur element necessary for the formation of the insoluble lead salt. The employment of a calomel purge or the old blue pill and black draught in biliousness furnishes us with another example of the apparent discrepancy between pathology and pharmacology.—*Merck's Archives.*

\*\*\*

BALDNESS, its cause and treatment, has been lately treated of by Gessner (*Therap. Gazette*, xxxiii, p. 630) of Paris. He states that chronic seborrhea is not of such serious prognostic importance as is generally supposed, providing timely treatment is employed. He advises the thorough use of tincture of soap with a little lavender, washing with very hot water and following up with cold water. Where the skin is irritable or inflamed, or if there is eczema, he applies:

Ichthyol.....	12 min.
Zinc Oxide.....	} of each, 1 dr.
Powdered Starch.....	
Petrolatum.....	1 oz.

On first beginning this treatment after baldness has commenced, many hairs will come out, but these are all irremediably lost and simply hang in their follicles. They should be removed to make room for others. This treatment is employed once or twice a week, and to avoid the removal of too much fat, it is followed by an application of oil. After thoroughly cleansing the scalp the following should be applied:

Precipitated Sulphur.....	24 to 48 grn.
Resorcin .....	12 to 24 grn.
Salicylic Acid.....	6 to 12 grn.
Tincture Benzoin.....	12 min.
Petrolatum .....	1 oz.

This ointment is thoroughly rubbed into the scalp at night and the head covered with a cap. As a substitute ointment, the following is advised:

Resorcin .....	18 to 36 grn.
Chloral Hydrate.....	} of each, 36 to 60 grn.
Tannic Acid.....	
Tincture Benzoin.....	12 to 24 min.
Castor Oil .....	36 to 60 min.
Alcohol .....	20 fl. dr.



Where baldness already exists the scalp should be vigorously stimulated by applying every night, by the aid of a stiff brush, an ointment containing from 5 to 10 per cent. of chrysarobin, covering afterward with a cap. Faradization should be practiced daily from five to ten minutes with a brush.—*Merck's Archives.*

## Medical News and Miscellany.

**A MINERAL DIET.**—A dime museum performer, who was called "the man with ostrich stomach," has been earning an honest living for a year or so by swallowing pins, nails, coins, watch chains and other dainties. He got along fairly well until he began to gorge himself with pins, when his stomach rebelled, and he was forced to go to a hospital in Brooklyn. There he was operated upon, and two nickel watch chains, one brass chain, two latch keys, six hair-pins, 128 common pins, ten  $2\frac{1}{2}$ -inch iron nails, two horseshoe nails, one finger ring set with a stone, and several other equally digestible articles were removed.

**THE NEW STATE BOARD OF HEALTH.**—On January 24 Governor Longino appointed the new State Board of Health. Under the provisions of the code the State Board of Health is composed of twelve members, five of whom are recommended to the Governor by the State Medical Association and the other seven are selected by the Governor from the seven congressional districts. Following are the selections made by the Governor:

First district, Dr. W. S. Green, of Aberdeen; Second district, Dr. P. W. Rowland, of Oxford; Third district, Dr. J. N. D. Shinkle, of Friars Point; Fourth district, Dr. C. D. Mitchell, of Pontotoc; Fifth district, Dr. H. S. Gully, of Meridian; Sixth district, Dr. B. D. Watkins, of Natchez; Seventh district, Dr. E. J. Jones, of Hermanville.

Following is the list of members recommended by the State Medical Association, and to whom Governor Longino has issued commissions:

Dr. J. F. Hunter, Jackson; Dr. H. H. Haralson, Vicksburg; Dr. H. A. Gant, Water Valley; Dr. S. R. Dunn, Greenville; Dr. William M. Painé, Aberdeen.

---

CHRISTIAN SCIENCE VS. DIPHTHERIA.—The Pittsburg (Pa.) Dispatch of January 8 says:

Diphtheria and Christian Science have had a bitter battle in a New Brighton family for the past two weeks. Diphtheria has won so far. Two children are dead, while a third child and the father are dangerously ill with the same disease.

Frank Martzolf and his wife have been believers in Christian Science for three years, and so confirmed in the doctrine are they that they have seen their two little ones die of malignant diphtheria and were willing to see their remaining child perish rather than take her case "out of the hands of the Lord." Not until forced to do so by the health authorities would the parents permit a physician in the house, and even then the father refused to give the medicine prescribed, and the health officials were compelled to take the family in charge.

When the first child, Nancy, died, Martzolf called on an undertaker to bury her. When asked for the certificate of death he said there was none, and Coroner Taylor began an investigation. He found the second child, Roy, in the last stages of the disease, and ordered Dr. Boyd to treat him. The father refused to give the boy the medicine, and he died a few hours later. The health officials are now in charge, and may be able to save the third child and the father, both of whom are down with the disease.

Beaver Valley people are very much wrought up over the matter, and it is likely that Christian Science, with its prominent leaders in New Brighton, will be investigated by the courts.

---

TREATMENT OF A CASE OF FACIAL NEURALGIA.—Bernays ("Report of a Surgical Clinic") cites a peculiarly obstinate case of facial neuralgia with treatment. The patient was a lady aged 50 years, who showed a good family history and whose previous health was also good. The trouble began with a severe neuralgic toothache of her lower right molars, and was par-

oxysmal at first, but after two months became continuous. The paroxysms generally occurred in the early morning, and entailed much acute suffering. The pain was relieved by biting strongly upon some firm object, but returned immediately when the pressure was removed. The touch of anything cold or hot promptly excited a paroxysm. A moderate heat, when sustained, produced the opposite effect. In the effort to afford relief four molars were extracted, but without success. The patient strenuously held out against the use of narcotics in any form throughout the entire course of the disease. Antikamnia in ten-grain doses (two five-grain tablets) was found efficient as an obtundant, and was relied upon exclusively. Eight weeks after section of the nerve, when the report was written, there had been no return of her former trouble in any degree.—*The Medical News*, January 13, 1900.

---

DYSMENORRHEA.—DIOVIBURNIA is the Reliable Remedy in Dysmenorrhea (invaluable in congestion), relieving pain and regulating the uterine functions; possesses Antispasmodic properties which are exerted especially on the Uterus and Appendages. Unexcelled in Leucorrhea, Amenorrhea, Menorrhoea, Menorrhagia; Vomiting in Pregnancy, Threatened Abortion, Miscarriage, Parturition and Subinvolution. In female Neurosis combine NEUROSINE (Dios) two parts to DIOVIBURNIA four parts.

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---

PREPARATIONS OF IRON IN THERAPEUTICS.—In an interesting article on this subject, Dr. Anton Ewald, of New York (*Medical Standard*, January, 1900), states that the organic ferruginous preparations are much better tolerated than the inorganic, as the inorganic chalybeates irritate the gastric and intestinal mucous membranes, and are not well borne in cases of disturbances of the digestive tract. On the other hand, the very patients who require the administration of iron manifest a

marked irritability of the intestinal tract, or suffer with gastro-intestinal catarrh, gastric ulcer, etc. In the case of such patients whose nutrition has been reduced during the faulty action of these organs, this would mean a further injury, and experience has taught the truth of this statement. Recognizing this fact, various iron preparations in organic form have been introduced into medical practice during the past few years. Among these the author especially mentions ferro-somatose, since it is distinguished from the other organic iron preparations by the fact that, in consequence of its base, somatose, which, as is well known, constitutes the most efficient albumoses preparation, it possesses a high nutritive value. The preparation was administered in doses of one level teaspoonful three times daily. The cases reported comprised severe anemia following during the puerperal stage, slowly progressive tuberculosis, and recent syphilis, with marked loss of hemoglobin. In summarizing his experience the author concludes that ferro-somatose not only fulfills the theoretical demands of an ideal iron preparation, but, owing to its base, somatose, possesses the advantage of being an excellent nutrient and tonic.

---

Since our last issue we have to mourn quite a number of our profession throughout the state, together with members of their families. In Terry Dr. Jones and his wife died within a few hours of each other, both having pneumonia. In the same town Dr. Grant lost his wife of the same disease. Dr. Wirt Johnston, of Jackson, after a four days' illness, succumbed to the same affection, thus costing the state one of her brightest sons. Dr. Austin, of Bovina, was killed at Oak Ridge about some financial matter. Several others have since passed to the great beyond. And many of them have been sick unto death, amongst others our worthy president of the State Board of Health, Dr. Gant, who, after a very severe attack of pneumonia, is slowly regaining his health.

---

DYSMENORRHEA.—I have tried Dioiburnia in several obstinate cases of Dysmenorrhea and it acted like a charm. I have since used it a great deal and find it satisfactory in all cases.—I. F. Huff, M. D., Schneeksville, Pa.



BROMIDIA IN THE TREATMENT OF EPILEPSY.—*The New Albany Medical Journal* for November, 1898, contains an article on "Epilepsy Treated by the Use of Bromidia," by T. Edward Converse, M. D., of Louisville, Ky., which, after discussing the use of medicines chiefly relied upon in the treatment of that disease, and giving the needful hygienic measures in considerable detail, concludes by referring to "the question often raised, how long will the patient have to keep up the treatment?" If the bromides are given, they should be continued for at least two years after the last convulsion, or if combined with the chloral hydrate in the form of bromidia, a year and a half is sufficient in most cases. If the patient is having several attacks during the day, a teaspoonful of bromidia after the attack and repeated in an hour will abort the next attack; but, as a rule, one teaspoonful will be sufficient.—*Sanatarium*, April, 1899.

THE PROPER TREATMENT OF HEADACHES.—J. Stewart Norwell, M.B., C.M., B.S., house surgeon in Royal Infirmary, Edinburgh, Scotland, in an original article written especially for *Medical Reprints*, London, England, reports a number of cases of headache successfully treated, and terminates his article in the following language:

One could multiply similar cases, but these will suffice to illustrate the effects of five-grain Antikamnia tablets in the treatment of various headaches, and to warrant the following conclusions I have reached with regard to its use, viz.:

- (a) They are a specific for almost every kind of headache.
- (b) They act with wonderful rapidity.
- (c) The dosage is convenient.
- (d) The dangerous after-effects so commonly attendant on the use of other coal tar analgesics are entirely absent.
- (e) They can therefore be safely put into the hands of patients for use without personal supervision.
- (f) They can be very easily taken, being practically tasteless."

SANMETTO AS AN INTERNAL REMEDY FOR GENITO-URINARY CONDITIONS.—While fully realizing the superfluity of further testimonials concerning a remedy so well and favorably known to the entire medical profession as is Saumetto, yet as I

possess an extended knowledge of its reliability based on several years' clinical experience and on the treatment of hundreds of cases in which it has proven itself eminently fitted to lighten the cares of the genito-urinary surgeon, I am perhaps invested with a certain authority which should permit me the privilege of adding my meed of praise. In all the inflammatory conditions of the genito-urinary tract, from the meatus to the pelvis of the kidney, the administration of Sanmetto is invariably beneficial. It not only renders the urine bland and unirritating, but also exerts a specific action on the inflamed tissues, soothing and restoring the tonicity of the parts. Its tonic action on the prostate is of such a nature that it proves of equal advantage in cases of either hyperplasia or of atrophy, and there is no remedy so uniformly successful in the treatment of atonic impotency or pre-senility. I have found it of inestimable service in the preliminary preparation of cases requiring surgical interference, and, combined with salol, use it constantly to secure urinary antisepsis. I am fully of the opinion that Sanmetto represents all that could be hoped for or desired as an internal remedy for genito-urinary conditions.

H. R. WEBER, M. D.,

Univ. Md. School of Med., 1886; Member Am. Med. Ass'n, etc.  
Chicago, Ill.

## Publications Received.

Municipal Control of Prostitution in the United States—  
Isadore Dyer, M. D., New Orleans, La.

Hygiene of the Nose—W. Cheatem, M. D., Louisville, Ky.

Acute Inflammation of the Middle Ear Complicating Scarlet  
Fever and Measles—Chas. H. May, M. D., New York.

The Climate of Colorado For Respiratory Diseases.

The Tuberculin Test, and the Need of a More Complete  
Diagnosis of Tuberculosis.

Both the above by Chas. Denison, M. D., Denver, Col.

A Review of the History and Literature of Appendicitis—  
Geo. M. Edebohls, A.M., M.D., New York.

On Certain Features in the Prognosis of Pneumonia.

The Ball-Valve Gall Stone in the Common Duct.

Internal Medicine as a Vocation.

The Clinical Features of Sporadic Trichinosis.

Leprosy in the United States and Report of a Case.

The Problem of Typhoid Fever in the United States.

In Memoriam William Pepper.

On Some of the Intestinal Features of Typhoid Fever.

Above eight by W. Osler, M. D., Baltimore.

Ureteral Anastomosis—Geo. H. Noble, M. D., Atlanta, Ga.

Recollections of a Rebel Surgeon—F. E. Daniel, Austin, Tex.

\*\*\*

In his book (Recollections of a Rebel Surgeon) Dr. F. E. Daniel, of Austin, Tex., has touched a cord which cannot fail to vibrate most tunelessly with those of us who were so fortunate as to have been a Confederate soldier. The book is as much interesting to the layman as to the profession and should be on the shelf of every southern library. In a manner at once entertaining and historical the doctor carries one through the entire war and leaves behind that true spirit of broad-minded liberality and charity which should ever prevail among all peoples, be they civilized or savage. Dr. Daniel was long a resident of this state and his old friends of the long ago are more than gratified to see in print those charming reminiscences of a mind cultivated and softened by the horrors of war. We bespeak for the volume a most cordial reception.

\*\*\*

THE NEW ORLEANS POLYCLINIC THIRTEENTH ANNUAL SESSION OPENS NOVEMBER 20, 1899, CLOSES MAY 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, La. mar1900

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No. 7

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CYSTITIS—URETHRITIS—PRE-SENILITY.**

**DOSE:**—One Teaspoonful Four Times a Day.

**OD CHEM. CO., NEW YORK.**

# **Syr. Hypophos. Co., Fellows,**

**Contains the Essential Elements** of the Animal Organization

—Potash and Lime;

**The Oxidizing Agents**—Iron and Manganese;

**The Tonics**—Quinine and Strychnine;

**And the Vitalizing Constituent**—Phosphorus; the whole combined in the form of a Syrup with a **Slightly Alkaline Reaction.**

**It Differs in its Effects from all Analogous Preparations:**

and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

**It has Gained a Wide Reputation,** particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

**Its Curative Power** is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

**Its Action is Prompt;** it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy: *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

## **NOTICE--CAUTION**

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, *finds that no two of them are identical*, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, *in the property of retaining the strychnine in solution* and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows." As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

*Medical Letters may be addressed to*

**Mr. FELOWS, 48 Vesey St., New York.**

*Reilly*



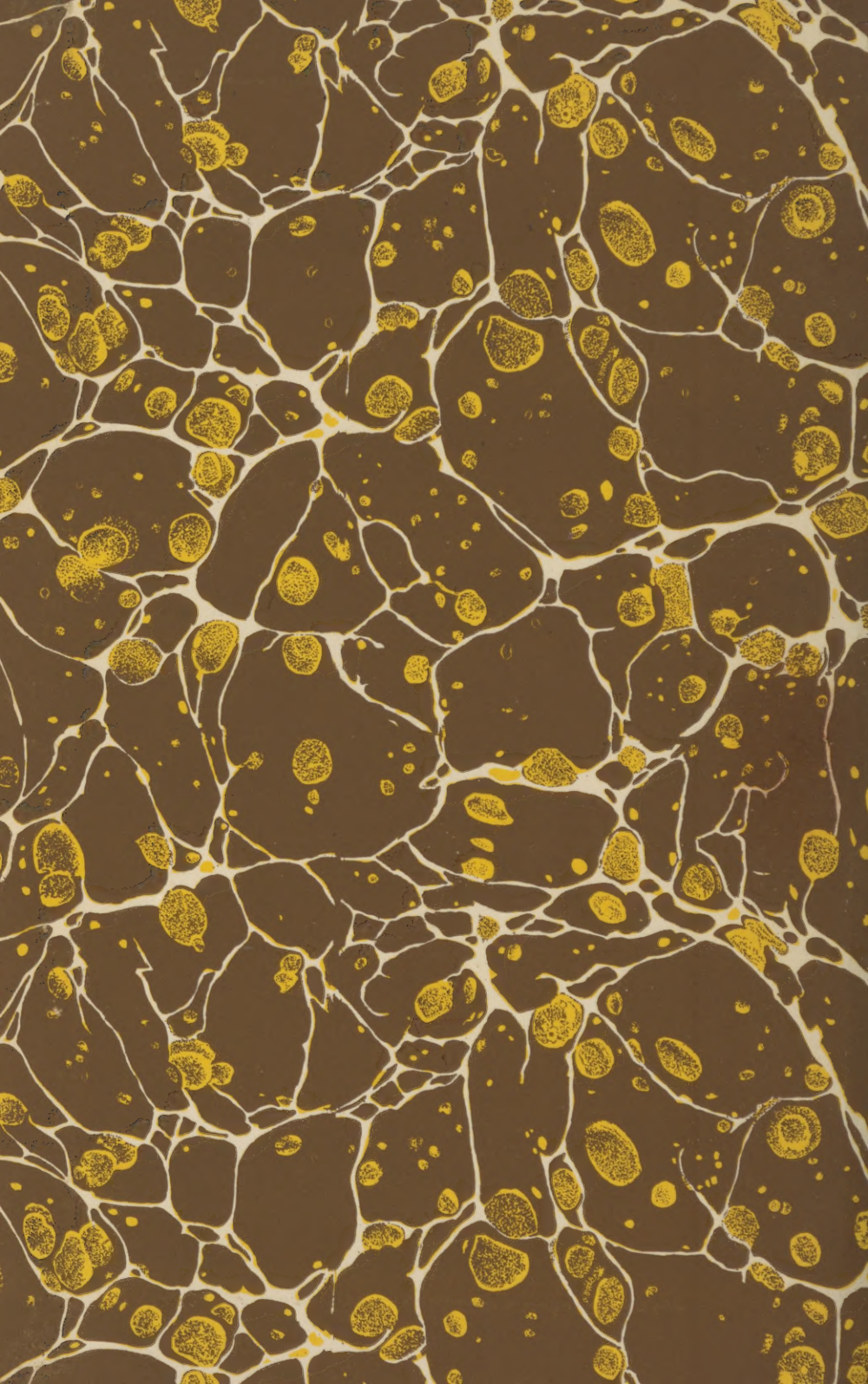




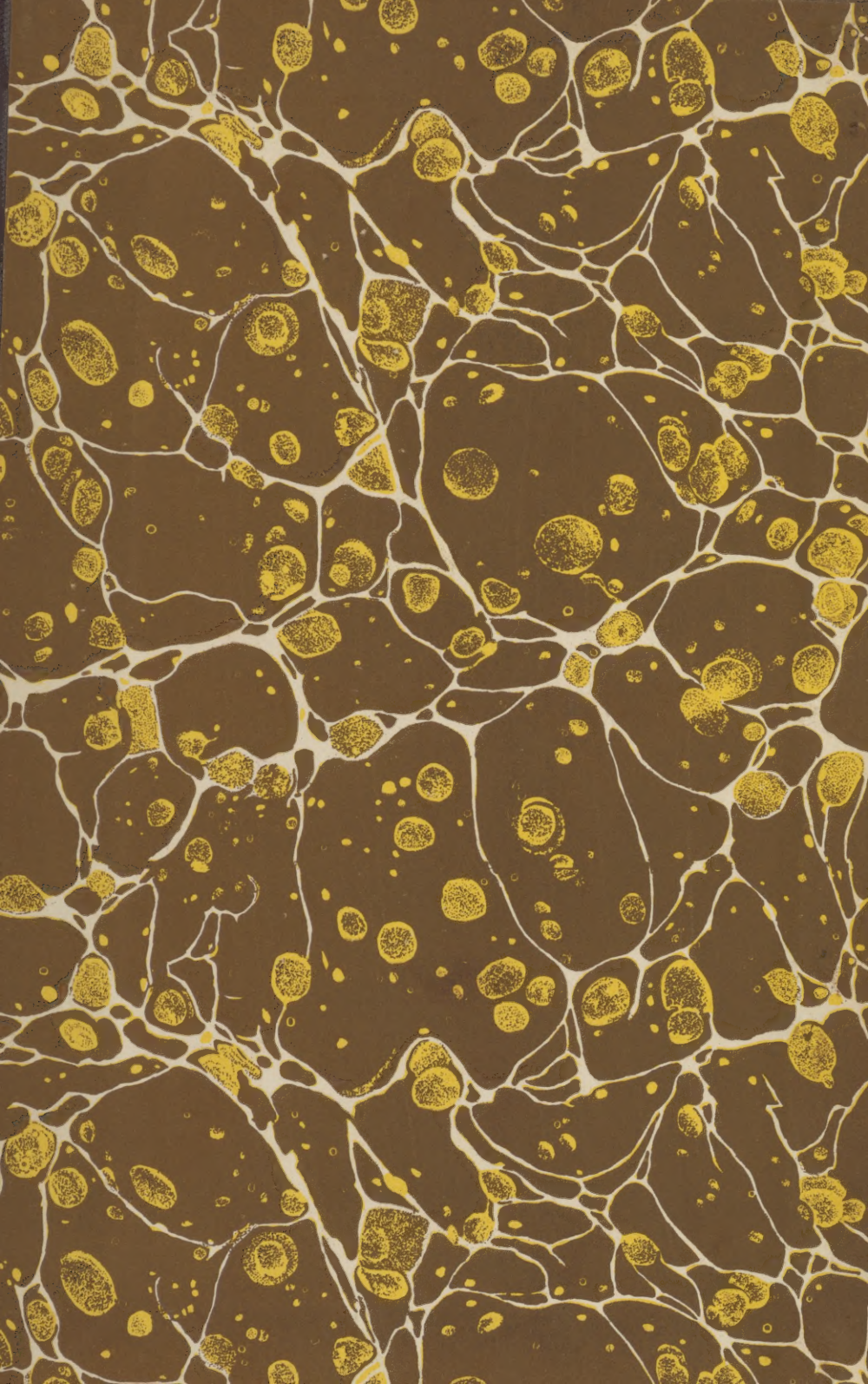












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